South Mountain Citizens Advisory Team Meeting
March 18, 2008, 5:30–8:30 p.m.
Agenda

Location: South Mountain Community College, 7050 S. 24th Street, Phoenix, AZ 85042 (Student Union Hall)

Agenda Topic	Discussion Lead(s)	Expected Outcome(s)	Action Item(s)	Time
Check-in and dinner				5:30 p.m.
• Welcome and introductions • CAT role and responsibilities • Team member questions and comments	• Fred Erickson • All	• Introductions of all new participants (if any) • Ask questions/clarification on issues, articles, press information since last meeting	• N/A	6:00 p.m.
Parking lot issues update	• HDR	• Knowledge of questions being addressed from parking lot issues memorandum	• TBD	6:20 p.m.
Floodplains	• ADOT/HDR	• Knowledge of SMF floodplain issues	• TBD	6:25 p.m.
Break	• ***Break***	• ***Break***	• ***Break***	***6:45*** *p.m.*
Jurisdictional waters	• ADOT/HDR	• Knowledge of jurisdictional waters associated with the SMF	• TBD	7:00 p.m.
Water resources	• ADOT/HDR	• Knowledge of the water resources associated with the SMF	• TBD	7:30 p.m.
Visitor comment session	• Fred Erickson	• TBD	• TBD	8:00 p.m.
Adjourn				8:30 p.m.

South Mountain Corridor Study
Citizens Advisory Team
Meeting Summary

Date: February 28, 2008
Time: 5:30 p.m.
Location: South Mountain Community College

CAT Members Attending:
Laurel Arndt, Ahwatukee Village Planning Committee
Chad Blostone, The Foothills HOA
Lisa Bray, South Mountain/Laveen Chamber of Commerce
Al Brown, Az Public Health Association
Tamela Daniels, South Mountain Village Planning Committee
Peggy Eastburn, Estrella Village Planning Committee
Michael Goodman, Phoenix Mountains Preservation Council
Don Jones, Southwest Valley Chamber of Commerce
Derrick Denis, Foothills Reserve HOA
Scott Mittelsteadt, Sierra Club
Michael Norton, Laveen Village Planning Committee
Dave Olney, Valley Forward
Jack Sellers, East Valley Partnership
Brian Smith, Calabrea HOA
Timmothy Stone, Bougainvillea HOA
Carola Tamarkin, Ahwatukee Foothills Chamber of Commerce
Terry Tatterfield, Kyrene Elementary School District
Carnell Thurman, City of Avondale

CAT Members Absent:
Camilo Acosta, Arlington HOA
Gila River Indian Community – District 4
Eric Baim, Silverado Ranch HOA
Clayton Danzeisen, Maricopa County Farm Bureau
Diane Krecker, Mountain Park Ranch HOA
David Lafferty, City of Tolleson
Cathy Lopez, Foothills Reserve HOA
Nathaniel Percharo, Pecos Road/I-10 Landowners Association
Laurie Prendergast, Laveen Citizens for Responsible Development
John Rodriguez, Lakewood HOA
Dave Williams, Arizona Trucking Association

Staff and Consultants

Michael Bruder, ADOT
Mark Hollowell, ADOT
Larry Langer, ADOT
Floyd Roehrich, ADOT
Timothy Tait, ADOT
Bill Vachon, FHWA
Arianna Valle, FHWA
Mike Book, HDR
Heather Honsberger, HDR
Ben Spargo, HDR
Fred Erickson, KCA
Tom Keller, KCA
Joy Butler, PDG

Citizens:

Vickie Ades
Heidi Becker
Adam Brenner
Kris Cleveland
Laura Clounch
Mark Clounch
B. Graves
Don Herp
Biff Hoffman
Jim Jochim
Dan Johnson
Laurie Johnson
Janet Lenalian
Quentin Lethbridge
Doug Murphy
Carl Newman
Jeanette Newman
Mike Nielson
John Oertle
William Ramsay
Greta Rogers
Colleen Sparks
AJ Wells
James Wesley
Irene Wesley
Tom Wolf

Meeting Agenda	Speaker
Welcome and Introductions	Tom Keller, KCA
CAT Role and Responsibilities	Tom Keller, KCA
Team Member Questions and Comments	All
Parking Lot Items	Tom Keller, KCA
E1 Alternative Initial Screening	Ben Spargo, HDR
Profile Options Along Pecos Road Section	Ben Spargo, HDR
Profile Options at the South Mountains' Ridges	Ben Spargo, HDR

Meeting began at 6:06 p.m.

Tom Keller: I would like to begin by saying that we do have enough South Mountain CAT members for a quorum tonight.

At this time I would also like to recognize two project team members that are in attendance tonight. We have Larry Langer, who represents ADOT's Valley Project Management Group. Floyd Roehrich is also here, who is the ADOT Deputy State Engineer.

For those of you not familiar with our meetings, the people located around the table are representatives of the South Mountain Citizens Advisory Team. We have a process in place that allows for citizen input. The blue cards located at the entrance to the room are for your use. If you have a question, please write it on the card. At the end of the meeting, you will have the option of either reading your question from the card or turning it in to me and I can read it. I only ask that you please write the question clearly so I will be able to read it.

We also have a process for evaluation of the meeting by the CAT members. This evaluation will be handed to the CAT members at the break. Please make sure you turn in these evaluations to a member of the study team by the end of the meeting.

Are there any questions?

No questions

Tom Keller: Thanks. This particular organization was formed to provide a recommendation whether or not the proposed South Mountain Freeway should be built or not. This is one of many processes that will be used as part of the decision-making process.

It is important as a part of this process that all CAT members treat each other with courtesy, respect, and dignity. It is important that all CAT members abide by these accepted standards of behavior.

We will now try to work our way through the agenda. The agenda that was sent to you includes an item that has evolved. Parking lot items are those things that come up in the meeting that we don't have time to answer during the meeting and have to come back to them. There is a parking lot

issues form that has been developed to address these items. We have placed a flipchart in the front so that any items that need to be answered later can be written here and answered by means of this form in the next CAT meeting.

Have any of the team members heard any questions or comments from your representative groups since the last meeting that you wish to bring forward at this point?

No response

Tom Keller: There was some information that was sent to you and is also located on the project Web site. This information is included in the topics being discussed tonight. Tonight's meeting is split into three sections. As we conclude each of the sections, there will be a little time for questions and answers. If we stop the question-and-answer session and we haven't gotten to your question then please write it down. We will come back to any outstanding questions at the end of the meeting. It is possible that we may not get through all three of the topics. I will be acting as the timekeeper and will keep a close eye on the clock. If there is a chance that our meeting will not be completed in the scheduled time then I will ask for a decision from the body for how we want to proceed. Does this sound reasonable?

Affirmative response

Fred Erickson: As we go through the presentation, please note that there is a slide number written at the bottom right corner. When asking questions, it would be helpful if you say the slide number that relates to your question.

Tom Keller: You may have noticed that we have a competing meeting next door. I am sure we won't be too loud.

Are you ready to begin?

No response

Tom Keller: Oh, one last thing before we start. We have a new member on the CAT. Her name is Diane Krecker and she represents the Mountain Park Ranch Homeowners Association. She is not in attendance tonight. In attendance, we have Carnell Thurman who will now be representing the City of Avondale and Scott Mittelsteadt representing the Sierra Club. Have I missed anyone?

No response

Tom Keller: Tonight, Ben Spargo from HDR will be giving the presentation.

Ben Spargo: I will be using the microphone and podium. The purpose of the presentation is to provide the CAT members with the process by which preferences regarding alignments and design options in the Eastern Section were made.

The major points from all three of the summary memos that were provided and that we are going to discuss here tonight are included in the Draft EIS. The conclusions that have been reached provided the study team with the parameters for analyzing the impacts of the proposed alternatives. The decisions are not final until the Record of Decision.

Prior to evaluating freeway alignments, the study team considered non-freeway alternatives. Funding for all of the elements is included in the Regional Transportation Plan. Individually or collectively, none of them would meet the purpose and need criteria and were, therefore, eliminated from further study. As possible, elements of each would be incorporated into the proposed project.

Another non-freeway alternative that was considered was a parkway alternative. This alternative has been discussed throughout the history of the project, as well as recently by the Ahwatukee Foothills Village Planning Committee. The parkway alternative was eliminated because it wouldn't fully provide the capacity needed for area traffic in 2030. Also the City of Phoenix has not supported this type of facility.

The study team then considered freeway alignments. Some of you may recall this graphic from previous presentations; it represents the many alignments the study team considered. They were developed by reviewing previous studies, from project team input and from public input.

Early in the study process, the study area was arranged into two areas: the Western Section and the Eastern Section. The presentation this evening focuses on alignments and design options in the Eastern Section. All of the Eastern Section alignments would connect to the Western Section alignments at a common point located east of 59th Avenue and south of Elliot Road.

Alternatives that were located within the Gila River Indian Community were removed from further study. As a sovereign nation their resolution not to allow ADOT/FHWA to consider alignments on their land remains in force. The remaining alternatives are shown in the figure.

The Ray Road alternative would also introduce a new system traffic interchange along I-10 that would severely impact traffic operations and substantial additional costs to construct.

The Ray Road and Chandler Boulevard alternatives were eliminated due to substantial impacts to residential and commercial properties.

The US 60 and I-10 Spur alternatives provided for some localized traffic improvements but would not meet the project's purpose and need criteria. They would also result in substantial impacts to residential and commercial properties.

The Central Avenue Extension Tunnel Alternative would not provide regional mobility. Furthermore, the associated cost would be disproportionately high for the reasons listed.

In addition to all those alternatives, these two additional alternatives were brought forward because of public comments: Riggs Road Alternative and the State Route 85 to Interstate 8 Alternative. Based on public comments regarding the validity of these two alternatives, they were evaluated. Based on the findings and reasons presented, they were eliminated from further study. The Riggs Road Alternative would cross into the Gila River Indian Community and also would not meet the project purpose and need. The SR 85 to I-8 Alternative is currently the designated Phoenix truck bypass and also would not meet the project purpose and need.

The other alternatives were eliminated, leaving the E1 Alternative, also known as the Pecos Road alignment, as the only build alternative in the Eastern Section. The Pecos Road alignment meets the

project's purpose and need criteria and minimizes the impacts to the adjacent community when compared to the other alignments considered.

Tom Keller: At this point, we will take questions from the CAT. As we go forward, I will monitor the time and stop the questions in order for us to have enough time for the entire presentation. So when I call time, we will need to move on to the next part of the presentation.

CAT Member: I have a question regarding slide 12. The second bullet states that the Parkway Alternative was eliminated due to similar impacts as a freeway alternative being constructed. What impacts are you comparing? What would be the housing displacement, costs and width of the parkway alternative?

Ben Spargo: In general, some of the issues related to the Parkway Alternative are that it would still have to go through the preserve and ridges and would have impacts to the South Mountains, but we can provide more details at a later point with respect to other issues.

CAT Member: If the City of Phoenix doesn't want to extend an arterial roadway through this area, then why would they favor a freeway here? Wouldn't a parkway be ADOT's responsibility?

Ben Spargo: A parkway would be under the jurisdiction of the City of Phoenix. A freeway would be under ADOT's jurisdiction.

CAT Member: Does ADOT have guidelines for parkways? There's information on your Web site regarding parkways.

Floyd Roehrich: ADOT doesn't build parkways. We have some roadways that are urban and some that are rural. An example of a rural roadway would be Grand Avenue. It was developed as a state route, after which, business and residential growth surrounded it.

CAT Member: What about Kino Parkway, did ADOT build that?

Floyd Roehrich: I'm not familiar with that roadway and the history.

CAT Member: In your presentation, you said that the parkway would not meet the purpose and need by not allowing for the regional demand. Hasn't it been said in a previous meeting that a freeway would not meet this demand either? I think that bullet regarding the City of Phoenix should be removed from the presentation.

Ben Spargo: At a past meeting Tim Tait said that the potential South Mountain Freeway would not be the solution to regional traffic. I think what Tim was emphasizing was that this potential freeway would not be a regional solution–a parkway in this area would have even less capacity.

CAT Member: In an ADOT rebuttal to a recent article the traffic vehicle count was up to 190,000 for vehicular usage of the South Mountain Freeway in 2030. But tonight, you said a different number. What is the difference?

Ben Spargo: We will verify the number.

CAT Member: On slide 19, you showed the Riggs Road and the SR 85 to I-8 alternatives. Wasn't there an alternative that was geographically between these two alternatives?

Ben Spargo: I am not aware of an alternative that was located between the Riggs Road and SR 85 to I-8 alternatives.

CAT Member: I would like to make an observation. You presented several alternatives that were eliminated because it didn't meet the project's purpose and need. I thought the purpose of this project was to reduce regional traffic congestion by using multiple means. I find it disheartening that you are using that as a reason for alternative elimination. We need more than one 10-lane freeway. There should be other alternatives considered besides just the E1 alternative.

Ben Spargo: The presentation slide individually shows that it wouldn't meet the purpose and need but there would be other options included. These would be other things that will be incorporated into the plans for a potential freeway, such as electronic message signs to let drivers know current roadway conditions, telecommuting so that less drivers are driving to work, high-occupancy vehicle lanes for drivers who carpool, and bus transit. There would be improvements to the arterial network as well.

CAT Member: You verbally gave the reasons for elimination of all other modes of transportation, for example transit and arterials, in the presentation, but I don't see them in the written document that was given to us. I think that this document should be written to include all the information. The slide presentation should have this information as well. It should be corrected so that it is included in the public record.

Ben Spargo: I think this is something we can evaluate doing. It was in the talking points, but not written in a PowerPoint slide to limit the time of this presentation.

CAT Member: Where can I get more detailed information from what is presented in these slides?

Ben Spargo: More information on all of these topics will be available in the Draft EIS.

CAT Member: On the Riggs Road Alternative slide, are there any other alternatives besides not going through the Gila River Indian Community that would meet the project's purpose and need? It seems that some of the alternatives presented may be a double standard. The South Mountain Freeway won't connect to Loop 101 in the West Valley.

Ben Spargo: In general, the data shows that less vehicles would use the Riggs Road Alternative; there is less demand for a freeway corridor further away.

CAT Member: Do you have numbers on that? I would be interested in seeing this.

Ben Spargo: We can get back to you on this.

CAT Member: Why can't the alternative be located on Baseline Road, which would be closer to the population densities of those who would be using the freeway? It seems ridiculous and illogical to have a Pecos Road alignment.

Ben Spargo: Some of the reasons for not having a Baseline Road alignment were given on a previous slide.

CAT Member: It would help if there was a little consistency in your statements.

CAT Member: The statement was a little incorrect. If the proposed South Mountain Freeway were located on Baseline Road, the Loop 101 and Loop 202 connectivity would be bad.

CAT Member: That is different than what he was saying.

CAT Member: To me, it looks like it was on Pecos Road and not Baseline Road.

CAT Member: So when they recommended the Western Section alignment, ADOT didn't seem to care that it wouldn't connect with another major freeway system interchange, but now this is what they are proposing in the Eastern Section.

CAT Member: I am not concerned with the westside.

CAT Member: I have a question regarding the Regional Transportation Plan. Have we made any steps forward in incorporating the vast growth in northern Pinal County into the Maricopa County RTP?

Ben Spargo: I can't be an expert in lieu of the Maricopa of Governments representative–Bob Hazlett. It is safe to assume that MAG is looking at statewide planning within the framework that it would influence planning for Maricopa County. We can follow up with MAG on this issue.

CAT Member: So they aren't taking this into account on the current plan?

Floyd Roehrich: As population growth in the state increases, ADOT is looking more at how neighboring growth will impact the planning process. We are looking at the results and trying to determine how to develop the planning efforts over a broader timeframe.

Tom Keller: If there are any more questions, please pass them to me and they will be addressed later. Is that alright?

No response

Tom Keller: We will do our best to manage our time so that we can respond to these additional questions at the end of tonight's meeting. Thanks for your attention to this matter.

Ben Spargo: In the next two sections, I will present the design options that were considered in the development of the E1 Alternative. They focus on the profile along Pecos Road and the profile and construction through the South Mountains' ridges.

For the profile options along Pecos Road, I will first look at the existing conditions on the roadway. I will then present the proposed future conditions with the freeway above and then below existing ground and how it relates to area drainage.

The existing conditions along the Pecos Road section are generalized in the aerial view at 32nd Street. Starting at the GRIC boundary, there is approximately 100 feet designated for the Salt River Project utility easement. North of that is Pecos Road, a four-lane divided arterial. North of Pecos Road is generally either undeveloped land or residential developments. The drainage channel and culvert west of 32nd Street is typical of the drainage system along Pecos Road.

South of Pecos Road, there are spreader basins within the utility corridor that turn the concentrated flow coming from the culverts into sheet flow prior to the water crossing the Community boundary, thereby reducing impact on Community land. During heavy storms, water pools upstream of the major culverts, usually in fields or undeveloped land located along Pecos Road.

The freeway above existing ground would follow a rolling profile. It would go over major drainage features as well as 40th, 32nd, and 24th streets, Desert Foothills Parkway and 17th Avenue. The figure shown is of Loop 101 near the University of Phoenix Stadium. The freeway goes over both Bethany Home Road and Glendale Avenue, while coming back close to existing ground at the half-mile so that a collector road can go over the freeway.

The next figures show the above existing ground profile from west of Chandler Boulevard to approximately 48th Street. The profile would roll from existing ground to above the arterials and then back to existing ground. There would be areas where it would cut through some foothills. The dashed lines represent existing ground; the solid lines represent the proposed freeway elevation. The grey areas represent grade separations between the freeway and arterials.

The proposed drainage plan, should the proposed freeway be above existing ground, would rely on gravity to move the water across the freeway.

In some cases, freeways have water which flows perpendicular to the freeway. An example of a regional freeway that has perpendicular water flow is the Loop 101 (Pima Freeway) east of SR 51 and west of Scottsdale Road. A series–approximately 19 in a 2-mile stretch–of natural washes cross under the freeway. Another good example of a long stretch of freeway that is above existing ground is on this same freeway from I-17 to Frank Lloyd Wright Boulevard.

The freeway below existing ground or depressed freeway condition would be similar to the sections shown in the figures. The figures both show I-10 in the West Valley. In the smaller view, you can see the slopes coming up from the edge of the freeway, and on the far right side, you can see the noise barriers.

These figures show the below existing ground profile from west of Chandler Boulevard to approximately 48th Street. The profile would remain below existing ground for the majority of the section. There would be areas where it would cut through some foothills. The dashed lines represent existing ground; the solid lines represent the proposed freeway elevation. The grey areas represent grade separations between the freeway and arterials.

For a freeway below existing ground, ADOT requires that freeways be designed to convey a 50-year storm for both runoff upstream of the freeway and for runoff within freeway right-of-way. The requirements for on-site water are increased because of added risk of flooding from stormwater needing to be pumped out of the freeway's belowground section.

The total area needed for detention basins would be approximately 150 acres spread along the Pecos Road section. There would need to be up to six pump stations to pump the water up from the freeway as well as drain the basins across the freeway. The following series of slides show potential locations for the drainage basins. The size of the basins was determined by the drainage analysis of the freeway below existing ground option. The basins were generally located near the major existing outflows. They were shaped with the thought to reduce impacts to residences as well as local circulation. This exercise was necessary to determine the relative impacts of the option. If the freeway below existing ground option were selected further analysis of the location and size of the basins would occur.

To begin the discussion of drainage system options for the depressed freeway option, I'd like to use a recently constructed freeway section as an example. Please note that the local jurisdiction of Gilbert paid for many of the enhancements to the basic facilities provided by ADOT. This example is on a section of the Loop 202 (Santan Freeway) near Ray Road. This example provides a discussion of pump stations, detention basins, on-site and off-site water, underground storage, and parallel drainage channels–all of which are discussed in our evaluation.

In the figure, the light purple line is the proposed right-of-way for the freeway above existing ground. The darker purple line is the potential right-of-way for the freeway below existing ground. The blue lines outline the limits of potential drainage basins. East of 40th Street there is a large channel the crosses under Pecos Road at the arrow shown. In general, the right-of-way limits are only different in locations where pump stations and basins would be required for the freeway below ground option. This location would require a total of 26 acres of land for a detention basin and pump station. As shown, the detention basin has been broken into two sections to allow local circulation to continue along Cottonwood Lane and reduce impacts to residences. Impacts would include residences, vacant land and a commercial development.

Just east of Kyrene de Los Lagos, there is a large channel that crosses under Pecos Road at the arrow shown. This location would require 26 acres of land for a drainage basin. The basin has been located to provide a clean take of residences while staying south of Lakewood Parkway. The basin would impact land west of the Park and Ride lot that has been set aside for future expansion.

Between 32nd Street and 24th Street there are two large channels that cross under Pecos Road, shown by the arrows. These locations would require a 10-acre basin as well as a 23-acre basin. Some crossings, like the one just west of 32nd Street would be eliminated and the water flow combined with locations east and west. These basins would impact a number of existing residences.

Since the freeway would be above ground at Desert Foothills Parkway, the existing culverts could be extended and detention basins would not be necessary. When the freeway goes back below existing ground east of 17th Avenue it would remove a number of potential crossings. These crossings have been combined into one large crossing located at the arrow shown. This basin would be 20 acres. Consideration would be made to not impact local circulation along Liberty Lane.

The final basin would be located west of 17th Avenue. This basin has been designed to be long and narrow to limit the impacts north of the freeway while creating the required 30 acres for the basin. The major outflow is located at the arrow shown. West of this area, the freeway would again come back above existing ground and turn north and west through the South Mountains.

After the basic drainage system was evaluated, other options were evaluated to see if they could reduce the impacts, costs, etc. of the freeway below ground option. The first option would be instead of the box-type basins, to use wide channels or long narrow basins. Unfortunately, in the areas that required basins, east of Desert Foothills Parkway, schools or other properties did not make it possible to use a wider channel or a long narrow basin layout. This option was eliminated from further study, although the long narrow basin would be used between 17th Avenue and Chandler Boulevard because the area is available–where a profile below existing ground was chosen.

Underground storage is generally used to control peak flows of on-site flow. It is not used for the larger flows from offsite water. To totally remove the need for basins, almost the entire freeway right-of-way would have needed to have been filled with storage cells. These cells require digging an additional 10 to 15 feet below existing ground. The safety aspects, such as keeping animals and humans out, confined space requirements for maintenance workers and maintenance aspects such as getting bobcat machines inside to clean, make them undesirable. This would only reduce the size of the drainage basins, not remove them. The cost for additional storage would be greater than the cost of the right-of-way for the basins. Although undesirable, the impacts associated with this alternative are presented later for comparison. It is possible that some underground storage may be used if a profile below existing ground were chosen.

ADOT generally constructs drainage infrastructure adjacent to the freeway because it is more economical during the right-of-way purchasing process and easier to maintain. It is conceivable that alone or through a partnership with city or county agencies, ADOT could reduce the drainage impacts on a freeway by constructing drainage infrastructure away from the freeway. For the reasons provided in the slide, this option was eliminated from further study.

Channels over the freeway would not reduce the need for basins, pump stations, or a parallel channel. Because of the costs associated with the overhead structure and the additional depth required of the freeway, which could require a wider footprint, it was eliminated from further study. If a profile below existing ground were chosen, it is possible that this option could be used, were there severe impacts or constraints not previously anticipated with the water going under the freeway.

The summary table presents the distinguishing impacts associated with the two profile options. The impacts presented are for the entire length of the E1 Alternative. The displacements include all existing homes and platted residential parcels. For the profile below existing ground, there would be 616 residential displacements with the base drainage plan and 491 residential displacements with underground storage cells. If the freeway were constructed above ground, there would be 317 residential displacements. For the profile below existing ground, $1.2 billion would be the approximate cost of the basic drainage plan and $1.3 billion would be the approximate cost with underground storage cells. If the freeway were constructed above ground, $810 million would be the approximate cost. As you can see, with the storage cells, less basin area would be needed, resulting in fewer displacements, but the costs would be greater. Noise barriers would be required with either profile option. A discussion of noise will be addressed in a future CAT meeting.

The desired outcome to go below existing ground would not fully be met by the additional cost of displacement. So the below-ground option was removed from existing study while the above-ground option was carried forward for further analysis.

Tom Keller: Any questions?

CAT Member: Can you clarify that last statement? So the below-ground option is not presented in the Draft EIS?

Ben Spargo: The impacts associated with all profile options are included in the Draft EIS. However, the team is recommending that the profile be above ground based on the information presented to you tonight.

CAT Member: So the below-ground design has been a design option for other cities in the Valley, but one that you are not presenting for this potential freeway.

Ben Spargo: We considered that as an option for this stretch of freeway but for the reasons mentioned in the presentation, it is not the preference. No decision on this would be final until the Record of Decision at the end of this process.

CAT Member: That is very disheartening. In the material that was sent to us last week, your final conclusion does not say that is the below-ground profile option would not be carried forward in the Draft EIS. It led me to believe that all options were still being considered. This is objectionable.

Ben Spargo: All the information that is being sent to the CAT comes from material in the Draft EIS.

CAT Member: Not having the conclusion in the materials you sent to us is a huge exclusion. Whether or not this oversight was intentional, I find this unacceptable.

Ben Spargo: We felt that the conclusion would be better presented in presentation so we could walk everyone through the information first.

CAT Member: Are you aware of what the information sent to us says?

Ben Spargo: I don't think the intent to mislead anyone was there.

CAT Member: You presented the potential drainage locations. I don't see any plans for anything west of 17th Avenue. Do you have the locations for anything in this location?

Ben Spargo: West of 17th Avenue, the profile would come back above existing ground so it would be on a similar alignment.

CAT Member: So the drainage basins would not be necessary in this area?

Ben Spargo: Yes

CAT Member: What is the E1 Alternative displacement differential?

Ben Spargo: Maybe I wasn't clear in my presentation. What I presented is for the E1 Alternative.

CAT Member: Can we please look at slide number 32? Tell us why the Desert Foothills Parkway can't be below grade in this location?

Ben Spargo: I tried to not say that it cannot go below grade. Early on in the analysis phase we decided to keep the horizontal alignments constant for both the below existing ground and above existing ground options. In this area, the profile could remain below the existing ground but the alignment would need to be shifted to the north.

CAT Member: It seems that you used the same standard throughout the rest of the proposed freeway, except in this location.

Ben Spargo: Generally the impacts in this area are much greater because of the foothills. If we kept the freeway along the same alignment, it would extend into the Gila River Indian Community. If we shifted the alignment north into the residential area, the mountainous topography would have cut off more areas and required ADOT to purchase more right-of-way because we would need to allow room for drainage basins.

CAT Member: Sure there are some significant impacts as you go below-grade. Can anyone from the other side of the room answer this question?

No response

Ben Spargo: When doing the analysis, we needed to keep the horizontal alignment the same to make an equal comparison.

CAT Member: So you didn't study this option in its entirety? Am I off base here? It would be great if one of the ADOT folks would speak up.

Timothy Tait: That is a good point. It is something that we can analyze.

ADOT Note: As the analysis progressed, it was determined that a depressed profile in this area would create substantial impacts on the residences. Because of this impact, the study on the depressed profile option in this area wasn't carried through to finality.

Floyd Roehrich: Yes, when doing the analysis, we saw that there would be a great impact to the community if the profile were below-grade in this area. This is something that we will continue to analyze and find out what the direct impacts would be.

Tom Keller: Any more questions?

CAT Member: Can I have a clarification? I understand the constraints around the mountain areas can be difficult when determining the roadway profile. It seems that moving the alignment north could complicate things.

CAT Member: I understand what you are saying, but my question is why haven't the direct impacts of a below-ground profile in this area been studied?

Floyd Roehrich: We don't have it quantified, but this is something we will do.

CAT Member: When the CAT first started meeting to discuss the Western Section alternatives, members of the Gila River Indian Community were attending these meetings. They raised the issue

that a drainage system for this proposed freeway would impact their land. Is this still an issue? Is there anyone from the GRIC here tonight?

No response

CAT Member: I guess not. Has this issue been discussed with the GRIC and are they now satisfied?

Ben Spargo: We haven't had any additional comments from the GRIC. This is assuming that we are keeping the existing flow the same. We will continue to try to work with the GRIC on this and other issues.

CAT Member: Was there a comparison analysis for air quality impact for an above-ground roadway profile versus below-ground? Was an analysis done for vector control, or mosquito control?

Ben Spargo: In regards to mosquito control, ADOT has standards for how long water can remain in basins. I would rather defer the air quality question for when we have the air quality panel at a future CAT meeting. At that meeting, we will have air quality experts that can fully answer your question.

CAT Member: On slide 46, the text says that desired outcome would not be fully attained. Where are you drawing a line on what is defined as being fully attainable? This seems rather subjective.

Ben Spargo: The bullet states that for a reduction in noise or visual impacts, a freeway below existing ground would not achieve full attainment.

CAT Member: In my opinion, I think you did a very admirable job of showing that the profile option below ground would reduce visual impacts.

Ben Spargo: It is important to note that there would still be impacts from a freeway with a below-ground profile. It is still anticipated that there would be noise impacts with this profile.

CAT Member: We know that is a given but what about the visual impact? I am still trying to understand why we can't have a below-ground profile.

Ben Spargo: The visual impacts go back to the first bullet point. Due to the noise barriers, there would be visual impacts.

CAT Member: So having an above- or below-ground profile would have the same visual impact?

Ben Spargo: No.

CAT Member: I don't understand.

Ben Spargo: I think those questions can be better answered during the future CAT meeting, which will address the visual impacts.

CAT Member: I have a problem knowing that this is all going into the public record. The statements of conclusions usually find their way into the final document. These comments stay in the document and there isn't much chance to amend them.

Timothy Tait: I hope you are reading the CAT meeting summaries. These summaries are rather accurate regarding the sense and spirit of each meeting. If you think there is something that we have missed, please let us know and we will amend and correct the statement. These summaries are relatively lengthy and are all posted on the project Web site.

CAT Member: I would like to be able to review the meeting notes. It would be nice if they came in the information packet that is sent to us prior to each CAT meeting.

Timothy Tait: Yes, we can do that. We will send this information to you by e-mail in advance to all of the CAT members.

Tom Keller: It is now time for our break.

Break taken at 7:27 p.m.

Tom Keller: Thanks everyone for keeping things on track. It is currently 7:40 p.m. We have one final portion of the presentation. It looks like we will have a number of questions left to answer at sometime around 8:10 p.m. We will make our very best effort to answer all questions tonight, but if we can't get to them, we will put the questions and their respective responses on the project Web site. So I have some idea, how many people have questions that are outstanding.

Some CAT member's hands were raised

Tom Keller: Please a reminder that you please fill out your evaluation forms and leave them with Joy before leaving the meeting tonight.

Ben, are you ready?

Ben Spargo: Yes.

Please note that handouts regarding the March topics are included in your binders. We have given them to you tonight so that you have adequate time to review them prior to the next CAT meeting.

Continuing along, the study team also evaluated profile options and construction options for navigating through the South Mountains' ridges. The preferred option is a profile that remains near existing ground except where it crosses the ridges. Through the ridges, the construction would result in open cuts of the ridges. This presentation will present the impacts and show visually how this may look. Then the options to bridge over or through the ridges or tunnel under or through the ridges will be presented.

*The figure on this slide presents a series of views of the same information. The total width of the view provided is approximately three miles. On the left is approximately 51st Avenue. Ivanhoe Street is located within the Dusty Lane community. On the right is approximately 35th Avenue or the western edge of Ahwatukee Foothills Village. The top two insets show an unexaggerated view of the profile of the current proposed profile and construction option through the South Mountains'

Ridges. The bottom figure shows an exaggerated view. The exaggerated view helps show changes in vertical elevation at the scale provided. The profiles are created by theoretically slicing the earth along the freeway's centerline. As shown by the red line, the profile would remain just above existing ground approaching and between the mountain ridges. There would be space between the roadway and the existing ground for a number of drainage and wildlife crossings in this area. Similar views to this will be provided for the bridge and tunnel options.

Another way to portray the future conditions is this simulation. It provides an aerial view looking almost directly east from just west of 51st Avenue. In the distance is Ahwatukee Foothills Village. This simulation shows the cuts through the South Mountains' ridges. The green line represents the Phoenix South Mountain Park/Preserve boundary, while the orange line represents the Gila River Indian Community boundary. As can be seen, the South Mountains extend from approximately the GRIC boundary, almost 11 miles north and east, ending near the intersection of Baseline Road and 48th Street.

The next slide shows a simulation that is a rotated view of the image on the previous slide. This view is looking southeast along the freeway centerline from approximately Ivanhoe Street. This gives a good representative view of what the cuts would look like through Main Ridge North and Main Ridge South.

The next figure shows a more engineered look at the cuts through the three ridges. It also gives the approximate dimensions, both width and depth, of the cuts. The assumed slopes are based on preliminary geotechnical investigations. The actual constructed slopes would depend on the geotechnical constraints encountered during construction.

The profile options were evaluated based on a number of criteria, including landscape alteration, intrusion, access, habitat connectivity, safety, homeland security, hazardous material transport and cost. Each option had different levels of impacts within each criterion. As possible, mitigation measures would be developed to minimize the impacts.

Here is a listing of the potential impacts of the proposed E1 Alternative. There would be safety issues regarding possible homeland security concerns and hazardous materials.

Some mitigation methods would be developed to minimize the impacts. Where the freeway is above ground, wildlife crossings could be expanded. The areas where the slopes had been cut could be treated to make their appearance more natural looking.

Alternative options to the open cut, bridge alternatives, and tunnel alternatives, were evaluated based on recommendations from project team members and members of the public. The desired outcome of these alternatives was to avoid or minimize impacts to the South Mountains. The bridge alternatives evaluated included a high profile options that would go over both ridges and a medium profile that would go about half way up the ridges.

This figure shows the high-profile option. There were a couple of constraints that controlled the bridge design: the first is that the maximum grade based on the ADOT design guidelines is 3 percent; the second is that the maximum embankment height is 40 feet. These controlled the linear extent of the freeway needed to ascend or descend from the ridges and where the freeway would be elevated on a bridge structure as shown by the conceptual piers. At a 3 percent grade, it takes over 6,600 feet to rise or fall the 200 feet. Therefore, this option would require the freeway to be

elevated through the section along the Dusty Lane Community as well as potentially into the Ahwatukee Foothills Village developments west of Chandler Boulevard. To put the height in perspective, some system traffic interchange ramps, for example, the eastbound Pecos Road to northbound I-10, are approximately 80 to 100 feet high for around 1,000 feet of length. This bridge at the peaks would be over 200 feet above existing ground and would remain at that height for over one mile.

The next figure shows the medium-profile options. The same design guidelines were used. This option would have a much lower profile, approximately 100 feet above existing ground, resulting in a shorter bridge section, approximately one and a half miles. But, as opposed to the high profile, this option would still require cuts through the upper ridge areas, shown by the yellow shading.

The bridge options would still have permanent impacts on the mountains due to the construction of the piers. The visual impacts for views from the mountains and to the mountains would be increased for people in Laveen, Dusty Lane, Ahwatukee and the Gila River Indian Community.

Incident management would be constrained on the bridge alternatives because of the height above existing ground, lack of a graded side-slope, and the distance between freeway access points. Consideration would be given to the transport of hazardous materials and homeland security concerns. The increase in construction cost for either option represents over 40 percent of the E1 Alternative construction cost and 25 percent of the overall cost for the eastern section of the project.

In conclusion, because the bridge alternatives would not avoid impacts to the South Mountains–in some cases would increase impacts–and because the costs were determined to not be prudent, the option was eliminated from further consideration.

Tunnel alternatives were evaluated for similar reasons, to evaluate whether they would reduce or remove impacts to the South Mountains. Three profile options that included tunnels were evaluated.

The first option would go below both main ridge north and main ridge south. It would be approximately 1.6 miles long and stay approximately 60 to 70 feet below existing ground. As shown by the yellow shading, this option would require excavation of the existing ground at the approaches to the tunnel portals. The second option uses a low profile similar to the E1 Alternative. Shown in the red, this option would result in a 1,000 foot tunnel through each of the ridges. Excavation of the ridges at the approaches to the tunnel portals would also occur. The final profile option uses the medium profile previously presented for the bridge alternatives. This option would result in a 500-foot tunnel through each of the ridges.

After the tunnel profiles were developed, cross sections needed to be developed. In general, the process would include determining whether it is possible to use tunnels and what the possible dimensions and distances below ground would be. This is done by reviewing the existing geological conditions and the available construction technology. Resources include geotechnical reports and boring information and meeting with tunneling experts.

After the tunnel constraints are determined, the needs are considered, including the number of lanes, sight distances, ventilation features, maintenance features and security issues. The operational needs are compared with the tunnel constraints to determine whether the operational needs can be met with the tunnel conditions outlined or if more than one tunnel would be needed.

It was determined from a geotechnical standpoint that tunnels would be possible. The available construction methods would likely be the boring method, which uses a boring machine built to the size of the desired tunnel, and the sequential excavation method, also known as the New Austrian Tunneling Method, which uses traditional machinery to excavate rock in two- to three-foot increments. The walls of the tunnel are coated with a shotcrete-like material after each incremental excavation to provide stability. The sequential excavation method was found to be more cost-effective and is able to produce wider tunnel sections than the boring method. To date, the widest tunnel excavations in the United States have been around 70 feet wide.

The proposed freeway would ultimately need to be ten lanes to accommodate design year, 2030, traffic. In an ideal situation, all lanes of traffic moving in one direction would be in one tunnel. This would result in two tunnels, each approximately 104-feet wide. The next most appropriate option—minimally acceptable—would have high-occupancy-vehicle traffic for both directions using a separate, approximately 92-foot-wide tunnel. Neither of these options would be possible to construct with current technology. To date, the widest tunnel excavations, using either method, in the United States have been 70 feet–about 22 feet narrower than would be necessary for the minimally acceptable option.

The only option that appears constructible using current technology would be to use four tunnels. Traffic operations would be impacted by splitting traffic going in the same direction. Two of the four tunnels would require an 80-foot width–10 feet wider than the currently constructed tunnels mentioned earlier.

Because of the variable nature of the site-specific geology, it is not possible at this time to determine specific dimensions of a maximum feasible tunnel width. Even though it was determined that the four-tunnel cross section would not be acceptable based on traffic operations and would be beyond current construction practice, the study team continued with the analysis of the option, including creating a simulation of what the low profile option would look like.

The simulation shown is from a similar angle as was shown for the cuts through the ridges. The low-profile is shown because it was determined to be the most like concept were a tunnel option chosen. Notice that the tunnels would still require scarring of the ridges for construction of the portals; up to 60 or 70 feet above the tunnel. Also, the freeway would still have impacts through the South Mountain Park/Preserve. The locations where the lanes split and come together would be of concern from a traffic safety standpoint due to the weaving and driver decisions required at freeway speeds.

Within the tunnel limits the impacts would be reduced for a number of the criteria. Between the tunnels and at the approaches, the low profile tunnel option would have similar impacts as the proposed E1 Alternative. Due to the construction of the portals, ventilations systems, maintenance areas, and other pertinent facilities, the option would not totally remove impacts to the natural setting of the mountains.

Consideration would be given to the transport of hazardous material and the concerns of the tunnel being a potential terrorist threat. Tunnels require advanced safety features that may require around-the-clock monitoring. In addition, safety concerns have been previously noted for any tunnel concept that splits traffic. The increase in construction cost for the low profile option represents over 40 percent of the E1 Alternative construction cost and 25 percent of the overall cost for the eastern section of the project.

In conclusion, current tunnel construction practices have not met the minimally acceptable characteristics for this proposed project. No tunnel options would fully achieve the desired outcome of eliminating impacts on the South Mountains. ADOT and FHWA determined that based on those two reasons the additional costs would not be warranted and therefore eliminated tunnel alternatives from further study.

Tom Keller: Are there any questions?

CAT Member: On slide 52, it was mentioned that variations in geology could present problems when cutting into the mountain ridges. Can ADOT give me an example of a best- and worse-case scenario?

Ben Spargo: Some of the information was based during the geotechnical evaluation of the ridges, some information was gathered from when the City of Phoenix built tunnels for a waterline.

Floyd Roehrich: On State Route 87, ADOT has had to continually go back and rebuild to stabilize the cut slopes. Also on US 93 near Kingman, we have had similar issues. We may need to do something in the case of the South Mountain ridges, but it is difficult to say. Everything ADOT builds is done as safely as possible, but the earth will do things. We have tried to anticipate things changes in the past 20 years, but slopes have deteriorated.

CAT Member: Can you give me an example of a worst case slope that was engineered and the issues that it might be having 20 years later?

Floyd Roehrich: I don't have any specifics off the top of my head.

CAT Member: Can we add this question to the parking lot issues?

Tom Keller: Yes.

CAT Member: I have another question. In the December meeting, it was mentioned that ADOT was talking to the GRIC about the traditional cultural properties issue. Is there any updated information on this?

Timothy Tait: I can answer the question if it is about the definition of a cultural property, but currently the issue has not been resolved.

CAT Member: Can this be put with the parking lot issues so that there will be a status report of this issue at every CAT meeting?

Timothy Tait: This can be added and addressed when there is an important milestone reached.

CAT Member: It seems that our original CAT meetings brought to light some issues that we are still not seeing ADOT address. Such is the case tonight when we are shown the photos of the cuts through the ridges. The problem with this is that the aerial is shown to us at an angle that is straight on. But showing us this angle, it doesn't allow us to see the most environmentally sensitive portions of the ridge cut, the area between the ridges.

CAT Member: On slide 53 under the access heading, the text on the slide says that there are no formal trailheads or staging areas for access into the park exist. The Sun Circle Trail is in this area. This trail is recognized at a federal level and should be recognized.

CAT Member: There are a number of migration corridors that wildlife use in between the South Mountains and other areas. How would this be addressed?

Ben Spargo: We will be discussing biology issues in more detail in an upcoming CAT meeting. I suggest we wait to answer that question until then.

CAT Member: Will we discuss the impact on vegetation during this same discussion?

Ben Spargo: Yes, that issue will be discussed in CAT meeting where biology issues will be discussed.

CAT Member: You talk about the width of the tunnels that were studied for this project. How wide are the comparable tunnels in the United States and other countries?

Ben Spargo: We will have to get back to you on that topic.

CAT Member: I am sorry that Laurel left because she had information regarding tunnels with her tonight.

Ben Spargo: Each tunnel would have its own limits, depending on the geology for example.

CAT Member: Hazardous materials would indeed be an issue regarding a tunnel as part of this project. How would this tunnel compare with the one below Margaret T. Hance Park?

Ben Spargo: The hazmat issue is something that ADOT would evaluate and make a determination at that point. But as of right now, no decisions have been made.

CAT Member: Would this tunnel be longer or shorter than the Deck Park Tunnel?

Floyd Roehrich: It would be shorter. The "low profile" tunnels would be about 1,000 feet long, while the Deck Park Tunnel is approximately 2,700 feet long.

Bill Vachon: One of the reasons that hazardous materials are not allowed in the Deck Park Tunnel is because Interstate 17 provides a viable alternative route. That would be one of the issues that would need to be evaluated prior to a decision.

Tom Keller: Any other questions?

CAT Member: On slide 53, the text states that there are no documented wildlife migration routes. On what evidence is this based?

Ben Spargo: I would prefer to leave that topic for the future CAT meeting in which biology issues will be discussed. At that meeting, biological experts will be available, who can better address your question. It is through their information that we have based the Draft EIS information.

CAT Member: My concern is that the Draft EIS is based solely on their information.

Bill Vachon: The biological experts have been in coordination with other agencies–Arizona Department of Game and Fish, and U.S. Fish and Wildlife. It is not based solely on the study team's opinions. When we discuss the biological issues, they can give you information regarding the background work that was performed.

CAT Member: Are you going to talk about open excavation?

Ben Spargo: We can talk about that at the March meeting or another future meeting.

CAT Member: What would you do with the excess material?

Ben Spargo: An implementation plan would outline this process.

Tom Keller: Any other questions?

No response

Tom Keller: At this time I invite any member of the public to ask questions of the team. When you ask your question, please stand and state your name.

Public Question: It seems that on the Riggs Road Alternative, ADOT has performed its analysis on pure cost. But on the E1 Alternative, the cost per house would be at least $350,000 on a few hundred homes. Didn't the tribal council allow study on their land?

Timothy Tait: The GRIC has only allowed ADOT a right-of-entry permit to study the potential impacts of the proposed South Mountain Freeway on tribal land.

Public Question: What if the GRIC changed their stance and allowed ADOT to consider an alternative on their land?

Timothy Tait: Should the GRIC change their position, the ADOT director would work with the Community. However, there is not an unlimited amount of time for that to occur.

Public Question: How much proposed future interstate traffic would be using the proposed South Mountain Freeway? Do you have the numbers?

Timothy Tait: The big question is how much traffic would be moving east to west and vice-versa and how much originates and terminates in Los Angeles. It has been determined that 9 percent would be classified as pass-through traffic. This would be traffic that originates from outside of Maricopa County and is destined outside of Maricopa County, without stopping in Maricopa County.

Public Question: Why doesn't ADOT divert funds into other routes like Loop 303 instead of just putting it into this project and instead build a South Mountain Parkway?

Timothy Tait: Our traffic modeling takes into account improvements to Interstate 8 and State Route 85. It is ADOT's position that a parkway or an arterial street wouldn't satisfy the transportation needs of the region.

Public Question: I live at around 24th Street and Desert Foothills. Has there been a discussion to not have an interchange at 24th Street. It seems like a traffic interchange at 40th Street and not one at 24th Street would be enough to satisfy the local traffic, which would mostly be residential.

Timothy Tait: That is very good input. Where the traffic interchanges would be located is not finalized at this point. Should a build alternative be selected, you will still have an opportunity to have input on this matter.

Tom Keller: If you are using the blue cards for your comments then great, but if you have them written down elsewhere, please submit them to us so that we can make sure we have your comments.

Public Question: In what year was a decision made to select Pecos Road as the preferred alternative?

Bill Vachon: The Pecos Road Alternative selection was based on analysis. It is the only alternative in the Eastern Section that is still on the table.

Public Question: Yes, but in what year was the decision made, 1984?

Bill Vachon: No, the decision was reanalyzed. The decision was probably made in 2003 or 2004.

Public Question: In 2003?

Bill Vachon: Yes, we reevaluated the alternatives and made this decision around that time.

Public Question: Who were the individuals that made this decision?

Bill Vachon: ADOT and FHWA.

Timothy Tait: This information was given at the last public meeting.

Public Question: Was the CAT involved in this decision?

Timothy Tait: No, there was no other feasible alternative in the Eastern Section.

Public Question: So the only alignment that was ever presented to the CAT was Pecos Road?

Timothy Tait: Maybe someone on the CAT would know

Public Comment: I would think you would know.

Timothy Tait: Some of the CAT members have been around longer.

Timothy Tait: It was presented at the 2005 public meetings where thousands of people attended.

Public Comment: I don't remember that.

CAT Member: Before reconvening, the work the CAT was doing was on the Western Section. I don't think you could ever say that this group has ever endorsed the Pecos Road alignment.

Tom Keller: Can we have the next question?

Public Question: You said that 9 percent would be pass-through traffic from the West to East Valley or vice versa. How do you know that this traffic isn't just going to downtown Phoenix?

Timothy Tait: I have a sheet here that can help answer that question. If I am reading this correctly, 29 percent of the traffic would be coming from the southwest and 26 percent would be coming from the southeast. It scatters out from there.

Public Question: How was this data gathered?

Bill Vachon: The data was all generated from MAG and the projected area development. The southwest and southeast areas of the Valley will be two of the bigger areas based on 2030 projections.

Public Question: It seems like the major traffic from east to west would be going downtown. The Pecos Road Alternative is a truck bypass route. There aren't any other transportation elements being discussed, such as light rail.

Timothy Tait: Trucks would be included in the 9 percent pass through traffic.

Public Question: How does that relate to downtown Phoenix traffic?

CAT Member: There is a lot of truck traffic that is stopping in downtown Phoenix.

Public Question: So the proposed South Mountain Freeway is not going to relieve traffic?

Timothy Tait: The proposed South Mountain Freeway would be designed to reduce congestion on the regional freeway system and would assist people who want to get from the southwest to southeast Valley.

Public Comment: There are not that many people trying to do that.

Tom Keller: Any more questions?

Public Question: As a follow up, it sounds like there will be more than a 9 percent pass through rate. Is there any more possibility that there would be future limitations to traffic? New York City has dealt with traffic issues by separating out the truck traffic and sending it into its own dedicated lanes. Is there any talk of doing this in Phoenix?

Timothy Tait: I don't know what the future holds. Today, the Phoenix bypass for Interstate 10 is State Route 85 to Interstate 8. Truck drivers are encouraged to use this route when their destination is not the Phoenix metropolitan area.

Tom Keller: Before we wrap up, I have several questions from Jim Jochim that I will read.

At the CAT meeting on October 4, 2007, there was a motion to invite Victor Mendez to address the CAT was passed by a motion of 13 to 2. The response from Timothy Tait at the December 13, 2007, CAT meeting was, "He did receive the information that the CAT would like him to appear at one of these meetings, but he is currently not scheduled to appear." Now here is the key question: since that was over 60 days ago, will Mr. Mendez extend a professional courtesy to attend a future SMCAT meeting to visit with the people who have invested a lot of their personal/non paid time to be part of the public involvement process?

Timothy Tait: We have conveyed the information to Director Mendez and are unsure at this time when the appropriate time would be for him to attend.

Tom Keller: Here is another question from Mr. Jochim. How many homes has ADOT purchased along Pecos Road for the potential build of the Loop 202? Also, how many vacant lots has ADOT purchased along Pecos Road for the potential build of the Loop 202?

Timothy Tait: Doug Murphy is sitting right here. He probably knows the answers to those questions as I recently provided them to him.

Doug Murphy: There have been 10 vacant lots and 10 or so homes that have been purchased as of August 10, 2007.

Written comments to be addressed in the parking lot issues document:

Public Written Question: When was the DEIS for the proposed SMF on Pecos Road released for internal review to FHWA, MAG, and the various other governmental agencies that need to approve the document before it is made public?

Public Written Question: Will the window of opportunity for ADOT to negotiate with the GRIC for a potential placement of the "proposed SMF" on their property close once the DEIS is released or will there be another chance for ADOT at the 11th hour?

Public Written Question: On October 8, 1985, Prop 300 was submitted to the voters for approval. On October 9, 1985, the Lakewood Map of Dedication was filed with the Maricopa County Recorder's Office and it allowed for nearly 300 feet of setback from GRIC property for easements, right-of-way, etc. Yet when I look at the "proposed Loop 202 on Pecos Road" ADOT map, the first house west of the Kyrene De Los Lagos Elementary School, located at 3439 E. Cedarwood Lane is in the "take zone" and its front property line is nearly 400 feet from the GRIC border. Why are the homes just west of the Kyrene De Los Lagos Elementary School that abut Pecos Road in the "take zone" down to 32nd Street–which isn't even an exit ramp per the ADOT maps?

Public Written Comment: Pinal County is in desperate need of infrastructure, especially in the City of Maricopa. It appears that MAG is dominating all decisions.

Public Written Comment: Below ground water retention in detention basin could be used by Foothills and Club West golf courses.

Public Written Question: If the freeway goes in on Pecos Road, do homeowners who get a large wall next to them (with a noisy freeway on the other side) get compensated for loss of property value?

Public Written Question: When a topic that has been eliminated according to you, does that mean it won't be supported during the final decision?

Public Written Question: There are two lanes in each direction between Phoenix to Tucson and Phoenix to Los Angeles. Is it realistic to think five lanes in each direction are required for a city bypass?

Public Written Question: Riggs Road Option: Aside from going through the Indian Community, why does this option not meet the requirements? What about the Maricopa community having access (the real growth area)?

Public Written Question: I have 20 acres between the Main Ridge North and the Main Ridge South, east of the power lines. What is the impact on my property?

Public Written Comment: Please send data to me regarding lots and homes that were purchased and where they are.

CAT Written Comment: Desert land in Scottsdale is selling for $100,000 per acre. You are demolishing some 300-400 acres of desert for a freeway. The citizens of Phoenix are financing the freeway to the tune of $30-40 million. Is this cost ever factored into the budget in some way?

CAT Written Comment: Were air quality impacts considered for both above and below ground options?

CAT Written Comment: What are the design considerations for preventing vector control (mosquito and rodent) issues from occurring?

CAT Written Comment: I challenge everyone in this room to drive out to the west end and walk to the desert ridges that are proposed for demolition to accommodate a freeway. We are destroying open space, an extraordinary ecology, at a time when we need more, not less open space, when we need more quiet places, not fewer cases of tranquility, when we need more places to remind us of the need for humility in our place in the larger web or life. I think someday we will be ashamed of the choices we are making here today.

Tom Keller: Please note that the next CAT meeting is scheduled for March 18. This is a Tuesday and not a Thursday.

Please remember to give us your completed evaluation forms.

Tom Keller: Is there a motion for adjournment?

Motion for adjournment

Tom Keller: Second?

Motion seconded

Tom Keller: All in favor?

Motion carries

Tom Keller: We are adjourned.

Meeting ended at 8:39 p.m.

South Mountain corridor team

South Mountain Freeway Study

March 18, 2008
Citizens Advisory Team Meeting

South Mountain Community College
Student Union

South Mountain corridor team

Agenda

Agenda Topic	Discussion Lead(s)	Expected Outcome(s)	Action Item(s)	Time
Check-in and dinner				5:30 p.m.
• Welcome and introductions • CAT role and responsibilities • Team member questions and comments	• Fred Erickson • All	• Introductions of all new participants (if any) • Ask questions/clarification on issues, articles, press information since last meeting	• N/A	6:00 p.m.
Parking lot issues update	• HDR	• Knowledge of questions being addressed from parking lot issues memorandum	• TBD	6:20 p.m.
Floodplains	• ADOT/HDR	• Knowledge of SMF floodplain issues	• TBD	6:25 p.m.
Break	• ***Break***	• ***Break***	• ***Break***	***6:45*** *p.m.*
Jurisdictional waters	• ADOT/HDR	• Knowledge of jurisdictional waters associated with the SMF	• TBD	7:00 p.m.
Water resources	• ADOT/HDR	• Knowledge of the water resources associated with the SMF	• TBD	7:30 p.m.
Visitor comment session	• Fred Erickson	• TBD	• TBD	8:00 p.m.
Adjourn				8:30 p.m.

Welcome and Introductions

- Facilitator
  - Fred Erickson, KCA
- ADOT
- FHWA

SMCAT Membership

Organization Name	Name	Attendance
Ahwatukee Foothills Chamber of Commerce	Carola Tamarkin	8/8 (100%)
The Foothills HOA	Chad Blostone	5/8 (63%)
Ahwatukee Village Planning Committee	Laurel Arndt	6/8 (75%)
Arizona Trucking Association	Dave Williams	1/8 (13%)
Arlington HOA	Camilo Acosta	1/4 (25%)
AZ Public Health Association	Al Brown	4/4 (100%)
Bougainvillea HOA	Timmothy Stone	4/4 (100%)
Calabrea HOA	Brian Smith	4/4 (100%)
City of Avondale	Carnell Thurman	7/8 (88%)
City of Tolleson	David Lafferty	3/8 (38%)
East Valley Partnership	Jack Sellers	4/5 (80%)
Estrella Village Planning Committee	Peggy Eastburn	7/8 (88%)
Foothills Reserve HOA	Cathy Lopez/Derrick Denis	4/4 (100%)
Gila River Indian Community - District 4	TBD	0/8 (0%)
Kyrene Elementary District	Terry Tatterfield	6/8 (75%)
Lakewood HOA	John Rodriguez	6/8 (75%)
Laveen Citizens for Responsible Development	Laurie Prendergast	5/8 (63%)
Laveen Village Planning Committee	Michael Norton	6/8 (75%)
Maricopa County Farm Bureau	Clayton Danzeisen	5/8 (63%)
Mountain Park Ranch HOA	Diane Krecker	3/4 (75%)
Pecos Road/I-10 Landowners Association	Nathaniel Percharo	1/8 (13%)
Phoenix Mountains Preservation Council	Michael Goodman	8/8 (100%)
Sierra Club	Sandy Bahr	8/8 (100%)
Silverado Ranch	Eric Baim	3/4 (75%)
South Mountain Village Planning Committee	Tamala Daniels	4/8 (50%)
South Mountain/Laveen Chamber of Commerce	Lisa Bray	4/8 (50%)
Southwest Valley Chamber of Commerce	Don Jones	7/8 (88%)
Valley Forward	Dave Olney	7/8 (88%)

SMCAT Purpose Statement

The South Mountain Citizens Advisory Team (SMCAT) will provide a forum for communication between the Arizona Department of Transportation (ADOT), Federal Highway Administration (FHWA) and the local community regarding the proposed South Mountain Freeway.

The SMCAT is a voluntary advisory team and not a decision-making body, and it will not be responsible for decisions made by the State of Arizona or the FHWA. The SMCAT will meet regularly to review project status and provide input on issues that are relevant to the project.

The single purpose of the SMCAT is to provide a Build or No-Build recommendation for the South Mountain Freeway.

SMCAT Meeting Protocol

- Welcome and introductions
- Establish a quorum
- Agenda
- Timekeeping process
- Standards for behavior notification
- “Discussion, debate, recommend” process
- Welcome visitors
- Parking lot issues
- Breaks

SMCAT Behavior

- SMCAT members are expected to treat each other with mutual courtesy, respect and dignity.
- Since the SMCAT is a voluntary, advisory team, it is important that individual SMCAT members abide by accepted standards of behavior.
- Unacceptable or disruptive behavior will not be tolerated and will be grounds for exclusion from further participation in SMCAT activities.
- Any SMCAT member who acts disrespectfully toward other members, disrupts the SMCAT process, or is unable to attend meetings on a consistent basis may be required by the third party facilitator, the ADOT public involvement team, or a majority of the other SMCAT members to leave or resign from the SMCAT.

South Mountain corridor team

Session Feedback Forms

SMCAT Members: Please complete **both sides** of the Session Feedback forms before you leave and give them to Joy.

Thank You.

Meeting Schedule and Topics

Date	Subject	Topics
March 18, 2008	E1 Alternative DEIS – Impacts	Parking lot issues update Floodplains Jurisdictional waters Water resources
April 17, 2008	E1 Alternative DEIS – Impacts	Visual resources Land use Biological resources
May 22, 2008	E1 Alternative DEIS – Impacts	Hazardous materials Energy Geotechnical Utilities

Meeting Schedule and Topics

Date	Subject	Topics
TBD	E1 Alternative DEIS – Impacts	Social conditions Environmental justice Noise
TBD	E1 Alternative DEIS – Impacts	Section 4(f) and 6(f) Cultural resources
TBD	E1 Alternative DEIS – Impacts	Economics Prime and unique farmlands Cumulative and secondary impacts
TBD	E1 Alternative DEIS – Impacts	Public comment summary Construction cost/right-of-way cost/ total cost
TBD	Air Quality Panel	Air quality (non-project specific)
Release of the Draft Environmental Impact Statement for public review and comment		

Meeting Schedule and Topics

Date	Subject	Topics
TBD	Air Quality Panel	Air quality (project specific)
TBD	DEIS Open Discussion	Discussion of action versus No-Action Alternative Discussion of mitigation CAT discussion regarding the DEIS
TBD	CAT Recommendation	CAT recommendation regarding action versus No-Action Alternative

South Mountain corridor team

Parking Lot Issues Update

HDR

Tonight's Topics

Tonight's presentation is concerning floodplains, jurisdictional waters and water resources.

- **What is the issue and why do we study it?**
- **Where are they located in the study area?**
- **What are the impacts of the Action Alternative?**
- **What are the impacts of the No-Action Alternative?**
- **How can we reduce or mitigate the impacts?**

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Project Coordination

ADOT is coordinating with the following agencies in regards to floodplains, jurisdictional waters, and water resources:

- Arizona Department of Environmental Quality
- Arizona Department of Water Resources
- City of Phoenix
- Federal Highway Administration
- Flood Control District of Maricopa County
- Gila River Indian Community
- Roosevelt Irrigation District
- Salt River Project
- United States Army Corps of Engineers

South Mountain corridor team

Floodplains

ADOT/HDR

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What are floodplains?

- A natural or man-made area that water passes through during times of high water flow
- Prevents flooding in other locations (i.e., streets, businesses or homes)
- Boundaries are determined and mapped by the federal government
- Provides natural and beneficial values such as wildlife habitat and recreational open space

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Why study floodplains?

- Structures in floodplains have potential to reduce ability to handle high water flows
- Project could require bridges over floodplains
- Project could alter floodplain boundaries or natural and beneficial values of floodplain

Are there floodplains that could be affected?

- Two known floodplains–both located in the Western Section
  - Salt River floodplain
  - Unnamed discontinuous floodplain artificially created by the Roosevelt Irrigation Canal and the Union Pacific Railroad
- No floodplains in the Eastern Section

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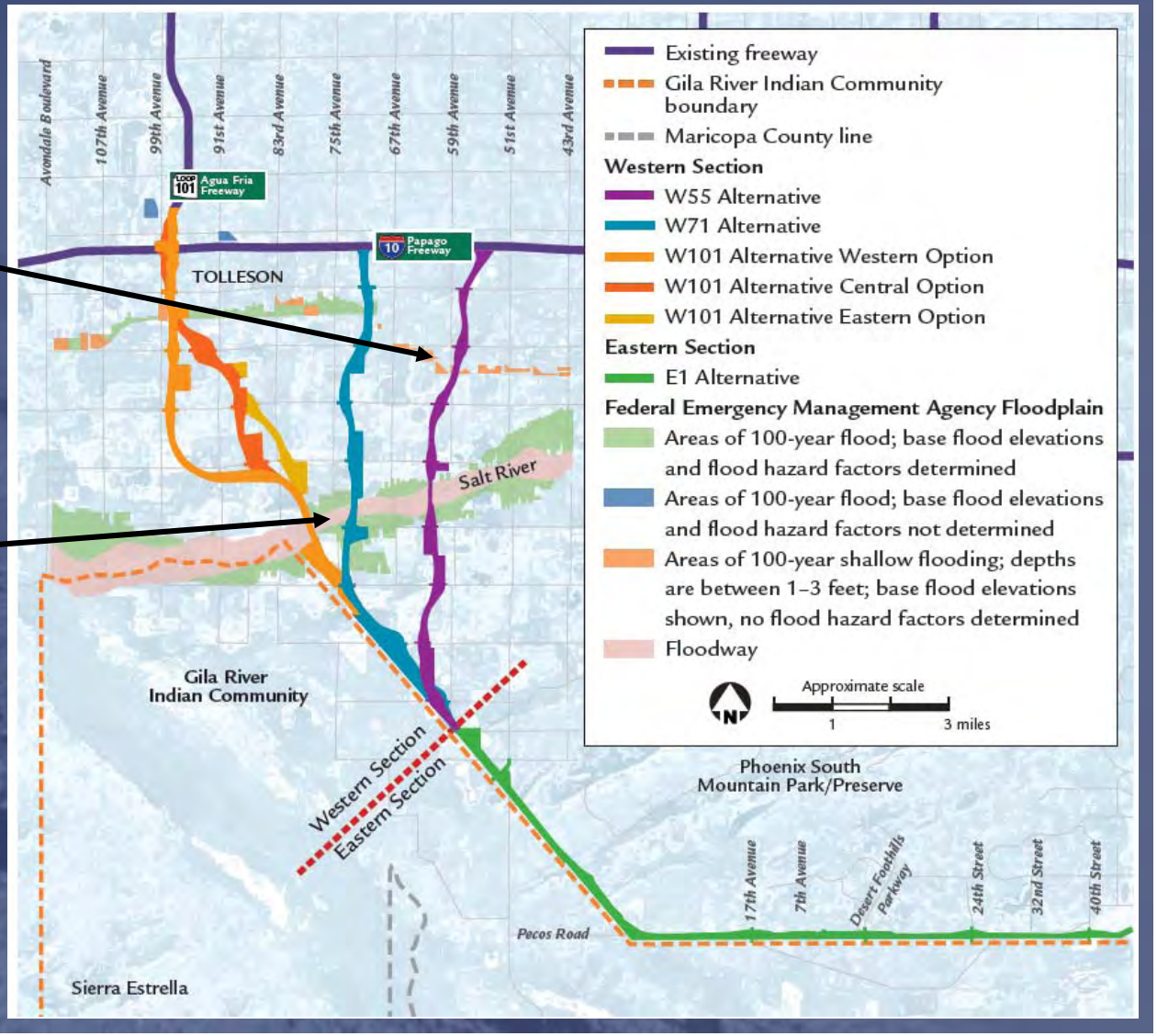
Where are the floodplains located?

UPRR/RID floodplain

Salt River floodplain



What are the impacts of the project?

- W55 Alternative would potentially impact 44.4 acres of the Salt River floodplain and 7.7 acres of the UPRR/RID floodplain
- E1 Alternative would have no floodplain impacts
- There are no impacts anticipated during operation of the freeway

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What if the project was not constructed?

- Population and traffic projections show continued growth in the study area over the next 20 years.
- Floodplains would need to be crossed in several locations at major arterial streets.
- Some streets currently crossing the Salt River at ground level would be closed due to minor flooding.

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How can impacts be reduced or eliminated?

- ADOT fully anticipates constructing bridges over the floodplains in order to comply with federal, state and local floodplain regulations.

- Bridges would be constructed in such a way that they do not contribute to any substantial changes in flood water elevations.

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How can impacts be reduced or eliminated?

- ADOT would aid flood control by collecting on- and off-site water
  - Culverts could be designed to accommodate a 100-year storm
  - Culverts could be designed to be self-cleaning
  - Drainage basins would be strategically sized and located

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Questions

South Mountain corridor team

Break

South Mountain corridor team

Jurisdictional Waters

ADOT/HDR

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What are jurisdictional waters?

- **Jurisdictional waters or "Waters of the United States" are navigable waters, related tributaries and adjacent wetlands.**
- **Examples include interstate lakes, rivers, intermittent and perennial streams, springs, riverbeds and wetlands.**
- **The US Army Corps of Engineers determines whether a feature is a jurisdictional water and therefore eligible for protection under the Clean Water Act.**

Why study jurisdictional waters?

- In 1970s, public concern about uncontrolled polluting of America's waterways led to the Clean Water Act.
- ADOT must obtain a permit from the US Army Corps of Engineers to discharge materials into or dredge materials from jurisdictional waters.
- The greater the project activity, the greater the degree in complexity of the permitting process and gaining permit approval.
- A project like the South Mountain Freeway would potentially be discharging materials into jurisdictional waters.

Are there jurisdictional waters that could be affected?

Western Section

- Salt River

Eastern Section

- Numerous ephemeral washes located along south side of South Mountain

(ephemeral washes are washes that have water only during and for a short period following precipitation)

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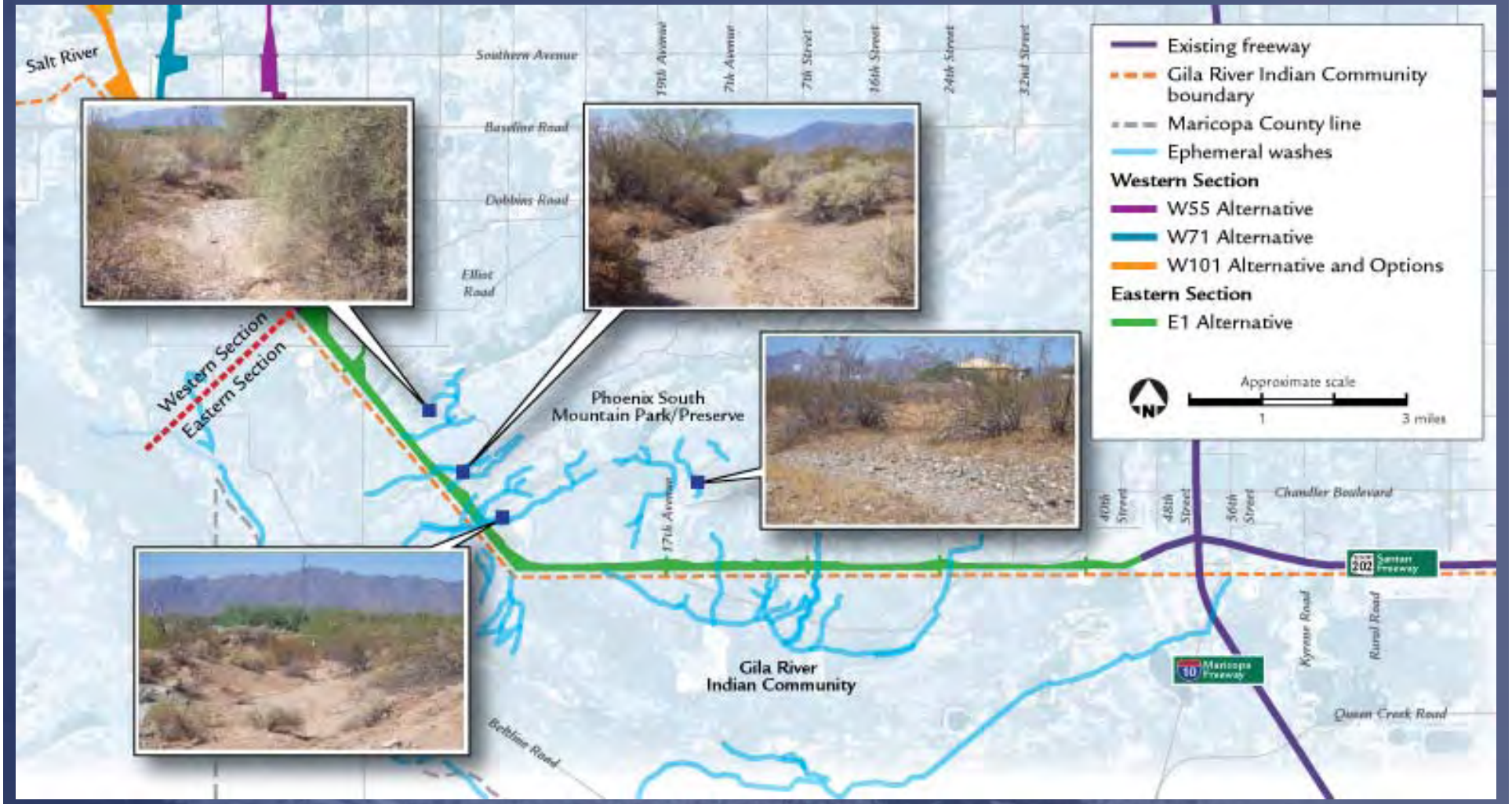
Jurisdictional waters in the Eastern Section



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What are the impacts of the project?

- The W55 Alternative would potentially encroach on 21.6 acres of the Salt River.
- The E1 Alternative would potentially encroach on 3.5 acres of ephemeral washes.

Would impacts occur during freeway operation?

- Water runoff discharge into jurisdictional waters
- Bridge structure across Salt River would generate runoff
  - ADOT continues to coordinate with the US Army Corps of Engineers and City of Phoenix regarding related projects

What if the project was not constructed?

- No freeway-related impacts on jurisdictional waters
- Population and traffic projections show continued growth in the study area over the next 20 years
- Jurisdictional waters could need to be crossed in several locations at major arterial streets

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How can impacts be reduced or eliminated?

- ADOT would institute measures to ensure that no further impacts such as erosion or water quality degradation would occur
- In some locations, bridges constructed instead of culverts to avoid jurisdictional waters impacts and provide for wildlife movement

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How can impacts be reduced or eliminated?

During construction, ADOT would develop a pollution prevention plan in coordination with the US Army Corps of Engineers and Department of Environmental Quality to control construction-related water quality impacts. This plan would include:

- **Constructing silt barriers**
- **Ensuring construction equipment is in working order**
- **Creating sediment basins**
- **Ensuring proper disposal of potentially contaminated materials**
- **Limiting vegetation removal and soil disturbance**
- **Seeding and mulching exposed slopes immediately after construction**

South Mountain corridor team

Questions

South Mountain corridor team

Water Resources

ADOT/HDR

South Mountain corridor team

Why study water resources?

- Water is and will continue to be a very important resource.
- How we use, conserve and treat our water will continue to be of utmost importance in the years ahead.
- We depend on both surface water and groundwater supplies for our everyday uses (e.g., drinking, irrigation, flood control, recreation).

Why study water resources?

- A project like the proposed South Mountain Freeway could have impacts on water resources in the study area.
- Surface water flows, if left uncontrolled, could cause substantial damage to a project like the proposed South Mountain Freeway.

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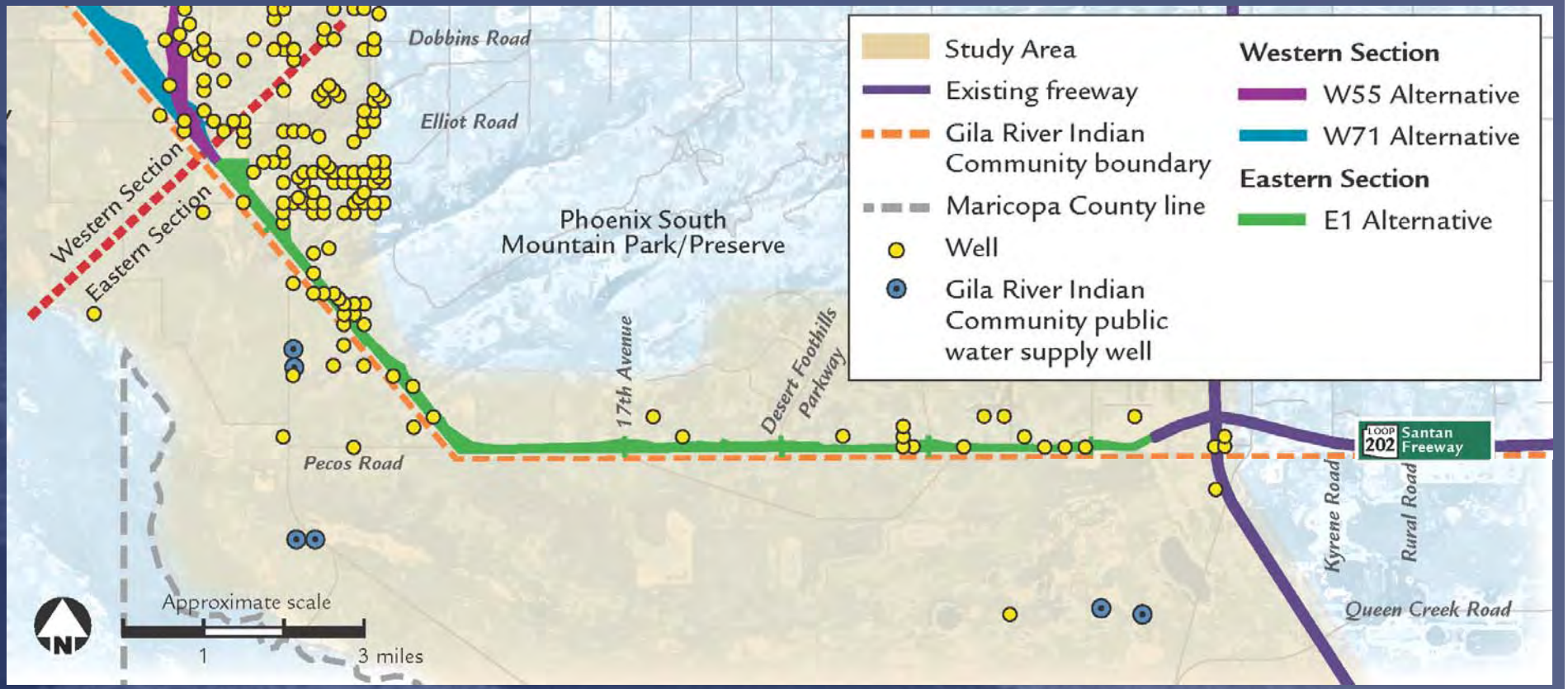
What kind of impacts could occur from construction?

- **Surface water quality could be altered from undesirable runoff entering adjacent washes or waterways.**
- **Groundwater quality could be altered from undesirable runoff seeping into nearby wells.**

  (Area wells are used for monitoring, production, geotechnical observation, domestic uses, testing purposes, or irrigation.)

- **Wells in the proposed right-of-way could be relocated or capped.**

Wells located in the Eastern Section



Source: Arizona Department of Water Resources, Groundwater Well Database, 2005.

South Mountain corridor team

What are the impacts of the project?

- W55 Alternative would potentially impact 17 wells.
- E1 Alternative would potentially impact 26 wells.
- During operation of the freeway, surface and ground water quality could be altered by runoff unless mitigated.

What are the impacts of the project?

- Freeway would cross major waterways including the Roosevelt Irrigation District Canal, the Salt River and the Laveen Area Conveyance Channel.
- The ridgeline cuts in the South Mountains could pose challenges in controlling runoff.

What if the project was not constructed?

- No freeway-related impacts on water resources
- Continued study area growth could contribute to ongoing impacts
  - Increased surface street traffic volumes would cause increased pollutants
  - Drainage runoff from construction areas would continue

Steps ADOT would take to reduce or eliminate impacts

- ADOT would implement measures to avoid, reduce or otherwise mitigate water-related impacts.
  - The measures would meet the requirements of the National Pollution Discharge Elimination System and the Clean Water Act.
  - The measures would be described in a Stormwater Pollution Prevention Plan which includes Best Management Practices for controlling construction-related pollution discharge

Pollution Prevention Plan Best Practices

- Constructing silt barriers
- Ensuring construction equipment is in working order
- Establish sediment basins
- Ensuring proper disposal of potentially contaminated materials
- Limiting vegetation removal and soil disturbance
- Seeding and mulching exposed slopes immediately after construction
- Allow flow of existing canals, irrigation water, etc.

How are well impacts resolved?

- New wells would be installed according to Arizona Department of Water Resources (ADWR) requirements.
- If the well were to be acquired, owners would be entitled to well replacement or compensation for lost water.

Methods of water replacement

- ADOT's first choice would be replacement of the acquired well. ADOT prefers to pay well owners to replace the acquired well. This would involve negotiations with the well owner and a payment to the owner for associated replacement well costs.
- Costs could include
  - hydrological studies
  - exploratory drilling and final well development
  - reconnecting the new well to the existing system

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Methods of water replacement

- ADOT's next choice would be to hire a contractor to perform the necessary studies on well placement and drill a new well, preferably on the well owner's property.
  - If new right-of-way would be required for the new location, these costs would be included in negotiations.
  - Replacement of the acquired well would assume that a new well location could be found that would produce water comparable in quality and quantity and that no change in water rights would occur.

Methods of water replacement

- In the event that well replacement were not possible, ADOT would still replace the water that would be lost by using alternative sources of water.
- The replacement water sources may be more costly than a well; therefore, the difference would be included in negotiations with the well owner.
- If the well could not be replaced, the value of the water rights would also be included in the negotiations.

South Mountain corridor team

Questions

South Mountain corridor team

Session Feedback Forms
&
Questions from the Public
(time permitting)

SMCAT Members: Please complete **both sides** of the Session Feedback forms and give them to Joy.

Thank You.

South Mountain Corridor Study
Citizens Advisory Team Meeting
March 18, 2008
Parking Lot Issues

The following questions or issues were brought forward as part of the February 28, 2007, Citizens Advisory Team meeting and designated as "parking lot issues" because the study team needed to perform research in order to address the question or issue accordingly. Below each "parking lot issue" is addressed by showing the CAT member question followed by the Arizona Department of Transportation's written response.

This document is divided into two sections. Immediately following are those questions, which have ADOT responses. At the end of the document are those questions, which will have responses in a future parking lot issue memorandum.

Questions addressed in this parking lot issues memorandum	
Profile options along Pecos Road	**CAT Member:** Why haven't the direct impacts of a below-ground profile in the Desert Foothills area been studied? Can these impacts be quantified? **ADOT Response:** The impacts associated with the below-ground profile were analyzed for the entire Pecos Road section. Initial impact assessment of the below ground profile near Desert Foothills Parkway revealed that most impacts would be greater when compared to the other profiles without achieving the desired benefit. The total impacts associated with a below-ground profile in the Desert Foothills Parkway area are presented in the accompanying memorandum.
	Public Written Question: On October 8, 1985, Prop 300 was submitted to the voters for approval. On October 9, 1985, the Lakewood Map of Dedication was filed with the Maricopa County Recorder's Office and it allowed for nearly 300 feet of setback from GRIC property for easements, right-of-way, etc. Yet when I look at the "proposed Loop 202 on Pecos Road" ADOT map, the first house west of the Kyrene De Los Lagos Elementary School, located at 3439 E. Cedarwood Lane is in the "take zone" and its front property line is nearly 400 feet from the GRIC border. Why are the homes just west of the Kyrene De Los Lagos Elementary School that abut Pecos Road in the "take zone" down to 32nd Street–which isn't even an exit ramp per the ADOT maps? **ADOT Response:** The original freeway envisioned in the late 1980s only included 3 lanes in each direction. The current plan would ultimately provide 5 lanes in each direction. The additional lanes require more right-of-way and also require a larger drainage system to handle on-site water. Also, the current plan still provides a bridge over 32nd Street even though no ramps are provided.

Profile options along Pecos Road (continued)	**CAT Written Comment:** Desert land in Scottsdale is selling for $100,000 per acre. You are demolishing some 300-400 acres of desert for a freeway. The citizens of Phoenix are financing the freeway to the tune of $30-40 million. Is this cost ever factored into the budget in some way? **ADOT Response:** Yes, the cost of right-of-way for the proposed freeway is included in the analysis. These costs are a very important component in ADOT's life cycle programming and project cost estimating practices. Besides funding from municipal sources, federal and state funding would also be used for this project. This is because the proposed freeway would benefit the regional movement of goods, services, and people in an effective manner that benefits the local, regional, and national economy.
	CAT Written Comment: What are the design considerations for preventing vector control (mosquito and rodent) issues from occurring? **ADOT Response:** The ADOT *Roadway Design Guidelines*, Section 609 – Drainage Basins, states "No basin shall be designed to retain standing water longer than 36 hours after the 24-hour design storm has passed without the approval of the Roadway Drainage Section Manager." This is accomplished by analyzing the permeability of the soil and determining how much water would seep into the ground water. Any additional water would need to either be discharged back into the channel system or pumped out of the basin.
Right-of-way	**Public Written Question:** If the freeway goes in on Pecos Road, do homeowners who get a large wall next to them (with a noisy freeway on the other side) get compensated for loss of property value? **ADOT Response:** Property owners are compensated when ADOT acquires a portion of the property or the complete parcel. The property owners are paid fair-market value for the land, which includes existing improvements on this land, and are also compensated for relocation costs. Property owners whose properties are not within the needed right-of-way for a freeway will not be compensated. There have been studies conducted to determine how property value is affected when a freeway is located in close proximity. The conclusions from the studies have been varied with a general determination that these properties do not depreciate; however, the rate of appreciation may be slightly less than homes that are a few blocks away.

Right-of-way (continued)	**Public Written Question:** I have 20 acres between the Main Ridge North and the Main Ridge South, east of the power lines. What is the impact on my property? **ADOT Response:** This information was forwarded to Pete Eno with the ADOT Right-of-Way Group. He will be contacting you to help you determine how the proposed Pecos Road Alignment would relate to your property.
	Public Written Comment: Please send data to me regarding lots and homes that were purchased and where they are. **ADOT Response:** The information requested was e-mailed on March 5, 2008, by Timothy Tait to the person who wrote the written comment.
Alternatives screening	**Public Written Question:** When a topic that has been eliminated according to you, does that mean it won't be supported during the final decision? **ADOT Response:** Some of the alignments and profile options for this proposed freeway have been removed from consideration because it was determined that there was another alternative or a certain profile option that had fewer impacts or better addressed the project's purpose and need. When the Draft Environmental Impact Statement is released for public review, the public will have an opportunity to review the information associated with the development of the proposed South Mountain Freeway alignments and submit comments, which will be included as part of the public record. Since this is a discovery process, if new or other updated information is identified (even after the Draft EIS is released) then that information is considered and evaluated as the project moves forward.
	CAT Member: Did ADOT construct the Kino Parkway in Tucson? **ADOT Response:** Kino Parkway was constructed and is maintained by the City of Tucson. It was initially envisioned to be an interstate route, but ultimately was not constructed as such.

Environmental issues	**CAT Member:** On slide 53, the text states that there are no documented wildlife migration routes. On what evidence is this based? **ADOT Response:** The evidence was supported by Arizona Game & Fish and the U.S. Fish & Wildlife Service as first evidenced by qualified field biologists. The issue is that of "major" migration corridors versus the movement of wildlife for "life requirements". While there are no major migration corridors, wildlife use the area and move through the area for life requirements. This topic will be further addressed in the currently scheduled April 17, 2008, CAT meeting as part of the biological resources presentation.
	CAT Member: There are a number of migration corridors that wildlife use in between the South Mountains and other areas. How would this be addressed? Will we discuss the impact on vegetation during this same discussion? **ADOT Response:** These topics will be addressed in the currently scheduled April 17, 2008, CAT meeting as part of the biological resources presentation.
Profile options at the South Mountains' ridges	**CAT Member:** When are you going to talk about open excavation? What would you do with the excess material? **ADOT Response:** The process for removing the cut area would begin with bulldozers excavating the upper 20 to 30 feet of the mountain. Loaders and rock trucks would remove the excavated material from the area. When harder rock is encountered, it is anticipated that blasting would be required. Blasting would be done according to standard regulations with respect to vibration limits. Again, the rubble would be removed from the area. It is anticipated that almost all of the excavated rock and soil would be used in fill areas along the freeway corridor. In some instances, the excavated material is recycled into other portions of the project, such as for riprap or structural backfill.Similar types of operations have been used on the Hoover Dam Bypass Project, US 93 near Kingman, State Route 51 in Phoenix and State Route 87 north of Fountain Hills. (See attachment for excavation photos from the Hoover Dam Bypass Project).

Design	**Public Written Question:** There are two lanes in each direction between Phoenix to Tucson and Phoenix to Los Angeles. Is it realistic to think five lanes in each direction are required for a city bypass? **ADOT Response:** The number of lanes between Tucson and Phoenix and Los Angeles and Phoenix has only indirect application for the need of the number of lanes for the proposed South Mountain Freeway. The purpose of this freeway is not a city bypass but to better serve regional mobility. It is projected that the future traffic demand for the freeway would require the ultimate lane configuration of 4 general purpose lanes and 1 high-occupancy vehicle lane in each direction. In addition, I-10 is currently planned to be widened between Phoenix and Tucson as well as between Loop 101 and SR 85 in the west valley. SR 85 between I-10 and I-8, which is currently signed as the truck bypass for Phoenix, will also be widened.
Miscellaneous	**CAT Member:** In an ADOT rebuttal to a recent article the traffic vehicle count was up to 190,000 for vehicular usage of the South Mountain Freeway in 2030. But tonight, you said a different number. What is the difference? **ADOT Response:** The 2030 traffic projections would vary along the South Mountain Freeway. Bob Hazlett of MAG distributed a volume strip map at the December 13, 2007, South Mountain Citizens Advisory Team meeting (this is available on the project Web site at www.azdot.gov/ValleyFreeways). It shows that the lowest volume (136,500 vehicles per day) would occur just south of I-10 near Van Buren Street; the highest volume (189,200 vehicles per day) would occur just south of the proposed State Route 801. Also, 165,000 vehicles per day would pass through the South Mountains and between 40th and 24th streets.
	Public Written Question: When was the DEIS for the proposed SMF on Pecos Road released for internal review to FHWA, MAG, and the various other governmental agencies that need to approve the document before it is made public? **ADOT Response:** The first version of the administrative Draft Environmental Impact Statement was provided to ADOT in August of 2006. FHWA and MAG received their initial version for review in January of 2007.
	Public Written Question: Will the window of opportunity for ADOT to negotiate with the GRIC for a potential placement of the "proposed SMF" on their property close once the DEIS is released or will there be another chance for ADOT at the 11th hour? **ADOT Response:** The final decision on the location of the preferred alternative would not be made until the Record of Decision. There would still be opportunity for changes to the proposed freeway location after the DEIS is released to the public.

Questions to be addressed in a future parking lot issues memorandum	
Profile options at the South Mountains' ridges	**CAT Member:** It seems that our original CAT meetings brought to light some issues that we are still not seeing ADOT address. Such is the case tonight when we are shown the photos of the cuts through the ridges. The problem with this is that the aerial is shown to us at an angle that is straight on. But showing us this angle, it doesn't allow us to see the most environmentally sensitive portions of the ridge cut, the area between the ridges.
	CAT Member: Can you give me an example of a worst case slope that was engineered and the issues that it might be having 20 years later?
	CAT Member: You talk about the width of the tunnels that were studied for this project. How wide are the comparable tunnels in the United States and other countries?
Alternative screening	**CAT Member:** I have a question regarding slide 12. The second bullet states that the Parkway Alternative was eliminated due to similar impacts as a freeway alternative being constructed. What impacts are you comparing? What would be the housing displacement, costs and width of the parkway alternative?
	CAT Member: On slide 19, you showed the Riggs Road and the SR 85 to I-8 alternatives. Wasn't there an alternative that was geographically between these two alternatives?
	CAT Member: On the Riggs Road Alternative slide, are there any other alternatives besides not going through the Gila River Indian Community that would meet the project's purpose and need?
	CAT Member: Do you have the numbers showing less traffic using the Riggs Road Alternative?
	Public Written Question: Riggs Road Option: Aside from going through the Indian Community, why does this option not meet the requirements? What about the Maricopa community having access (the real growth area)?
Profile options along Pecos Road	**CAT Written Comment:** Were air quality impacts considered for both above and below ground options?
Miscellaneous	**CAT Member:** I have a question regarding the Regional Transportation Plan. Have we made any steps forward in incorporating the vast growth in northern Pinal County into the Maricopa County RTP?

South Mountain Corridor Study
Citizens Advisory Team Meeting
March 18, 2008
Parking Lot Issues Attachment

RE: Question on excavation of the mountain cuts and excess material.

The following photos are from the construction of the Hoover Dam Bypass Project. They can be found at: http://www.hooverdambypass.org/Const_PhotoAlbum.htm

This first photo shows a number of excavation related activities.

These two photos show front-end loaders removing rubble from the site. The rock trucks would take the material to other parts of the project area to be used in fill areas.

This final photo shows a drilling rig preparing blasting holes in the rock.

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DRAFT Memo

To: South Mountain Project Team	
From: Ben Spargo	Project: South Mountain EIS & L/DCR
CC: Project File	
Date: March 13, 2008	Job No: TRACS No.: H 5764 01L

RE: Profile Options along Pecos Road Section

Amended Below Existing Ground Option – Including Desert Foothills Parkway

The study team analyzed the impacts of varying the profile of the proposed freeway along the 7-mile-long Pecos Road section. The major impact of putting the freeway below existing ground would be that drainage basins and pump stations would be required to handle on- and off-site drainage. Land needed for basins and pump stations resulted in additional residential impacts and construction and right-of-way costs.

The table below summarizes the impacts of each option.

Issue	**Freeway Above Existing Ground Option**	**Freeway Below Existing Ground Option** (basic drainage plan)
Residential displacements	317	616
Total cost	**$810 million**	**$1.233 billion**

The results for the Freeway Below Existing Ground Option reflect having the profile built over Desert Foothills Parkway. Based on the initial analysis, the study team determined that keeping the freeway depressed under both Desert Foothills Parkway and the nearby foothills would result in disproportionately high impacts when compared to the remaining sections. Changes to the impacts as presented in the table would include:

- A new 20-acre basin located east of Desert Foothills Parkway would adversely affect approximately 60 residences.
- A basin west of Desert Foothills Parkway would need to be expanded by an additional 40 acres (i.e., from 20 to 60 acres), which would adversely affect approximately 130 additional residences.
- The centerline of the freeway would need to be shifted to the north approximately 20 feet to keep the cut slopes from crossing into the utility easement and across the GRIC boundary. The shift to the north would potentially impact local circulation on Liberty Lane between 24th Street and Desert Foothills Parkway. Retaining walls would potentially be needed to eliminate impacts to Liberty Lane.
- Based on the latest project cost estimating information, right-of-way along this section costs approximately $1.5 million per acre. Therefore, the additional right-of-way would cost over $100 million.
- Major construction items including the basins, pump stations, increased excavation, and retaining walls could cost in the range of $50 million.

The location of the new and expanded basins as well as of the overall right-of-way footprint is shown in the ammended Sheets 3a, 3b, and 3c.

The additional 190 residential impacts and $150 million for right-of-way and construction would represent approximately 40% and 30%, respectively, of the overall increase between the profile options. Remaining above existing ground through the foothills area may also reduce the need for blasting and other construction related impacts. For these reasons, the Amended Below Existing Ground Option – Including Desert Foothills Parkway was removed from the Freeway Below Existing Ground Option.

HDR Engineering, Inc.
DRAFT Memo

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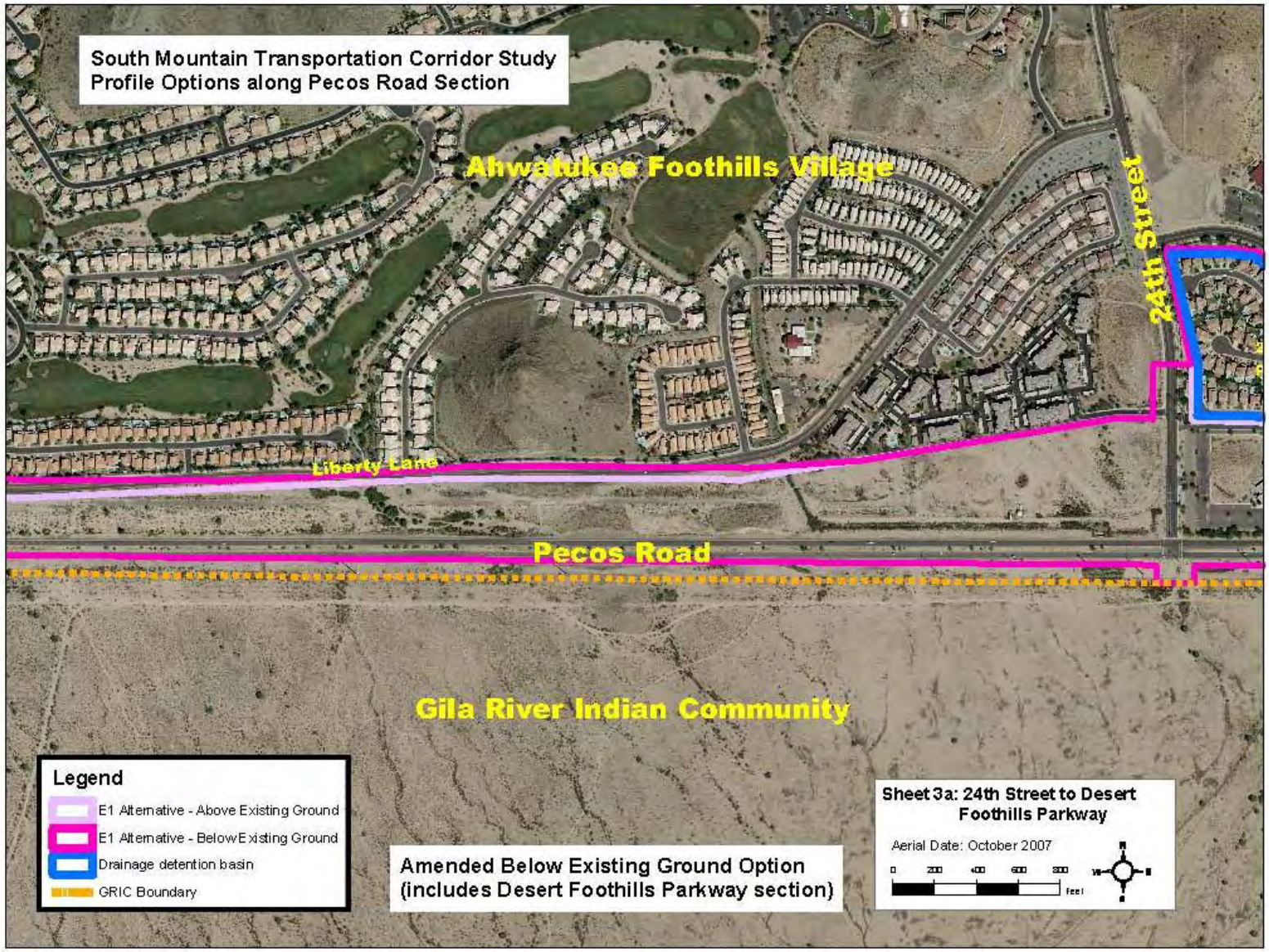

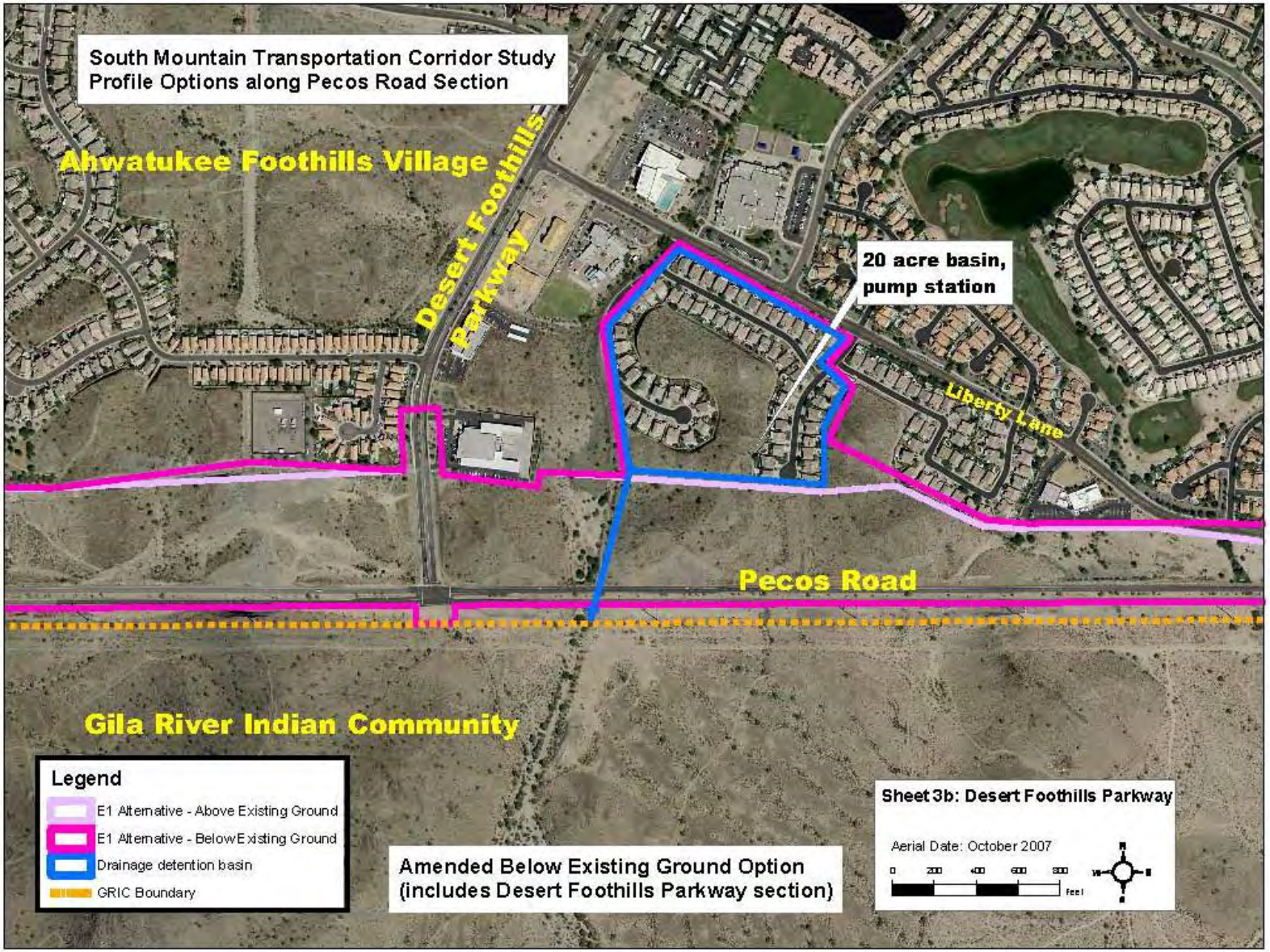

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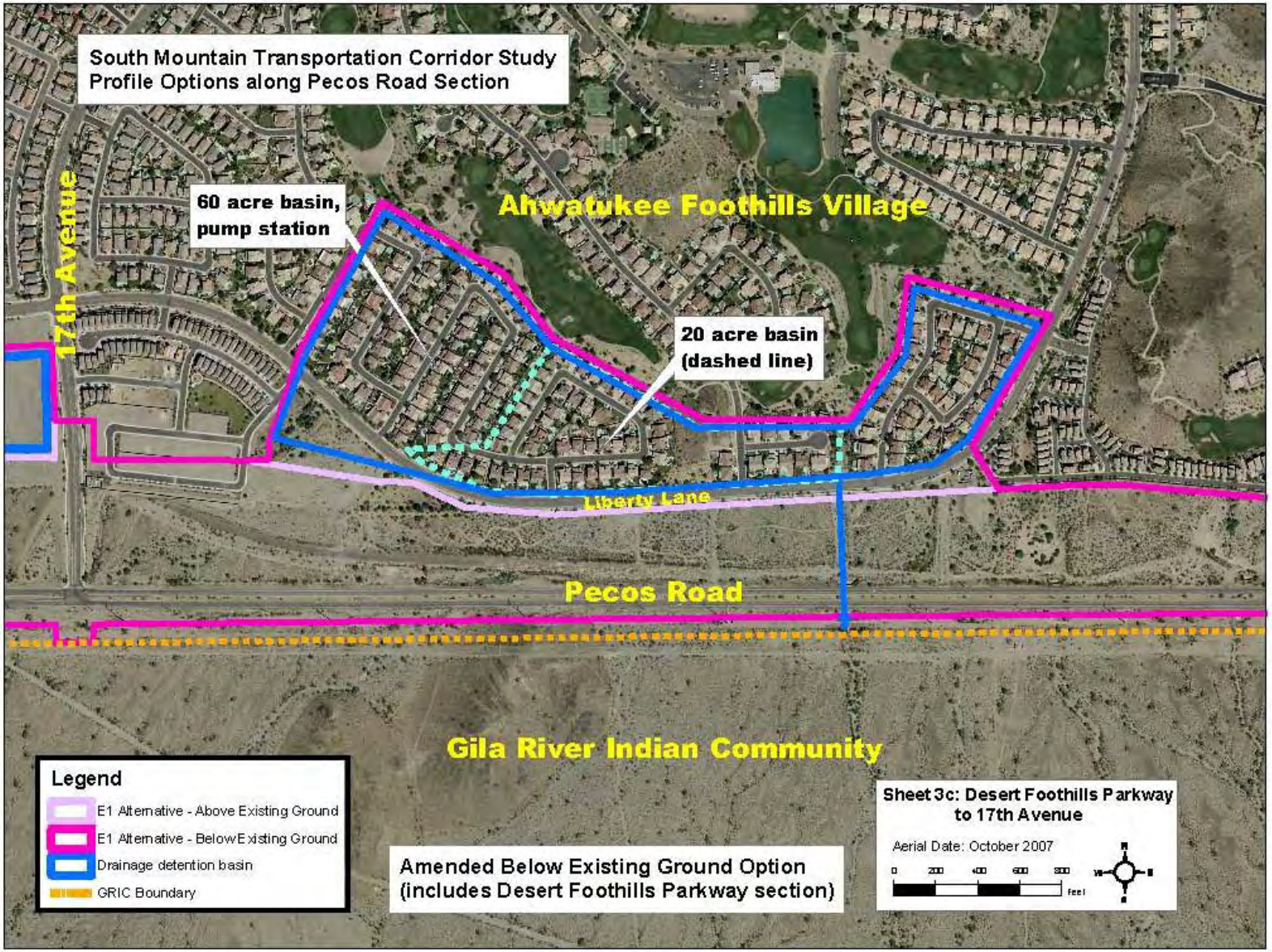

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South Mountain Transportation Corridor Study

Citizens Advisory Team
Technical Report Summary

Draft Jurisdictional Waters

Why study jurisdictional waters in the Environmental Impact Statement (EIS)?

During the 1970s, a growing public concern for uncontrolled polluting of America's waterways led to enactment of what would come to be known as the Clean Water Act (CWA). The Act established the structure for regulating discharges of pollutants into the waters of the United States. Waters of the United States are also referred to as 'jurisdictional waters'.

Over the years, the definition of 'jurisdictional waters' has become more complex. For purposes of presentation in this summary *only*, jurisdictional waters are navigable waters, related tributaries, and adjacent wetlands. These waters are regulated for the purposes of navigation and commerce, among other reasons. Section 404 of the Clean Water Act is one section of the Act that regulates what can be placed in jurisdictional waters. Under Section 404, the project proponent must obtain a permit from the U.S. Army Corps of Engineers (USACE) to discharge materials into or dredge materials out of jurisdictional waters. Various levels of permitting are allowed based upon the level of activity to occur in the jurisdictional waters and the value of the waters themselves. Simply, the greater the activity to occur in waters considered to be important, the greater the degree in complexity in the permitting process and the ability to gain permit approval.

The placement of structures such as bridge embankments, bridge piers and abutments, and culverts would be activities potentially discharging materials into jurisdictional waters. For the purposes of the EIS, the study team determines if jurisdictional waters are within the Study Area and if so, how the proposed freeway alternatives might affect jurisdictional waters in accordance with the requirements set forth in Section 404.

What kind of impacts would occur from construction?

A project like the South Mountain Freeway could require the placement of structures such as bridge embankments, bridge piers and abutments into jurisdictional waters leading to the discharge of dredged or fill material into the Salt River.

A project like the South Mountain Freeway could also cross ephemeral washes (washes that have water only during and for a short period following precipitation). In some instances, these washes may be channelized to control stormwater runoff and directed toward culverts allowing such waters to cross under the freeway.

Are there jurisdictional waters that could be affected by the South Mountain Freeway?

There are two areas where jurisdictional waters could be affected (Figure 1).

- The Salt River would be considered jurisdictional waters. The jurisdictional boundaries would be considered the 'ordinary high water mark', commonly thought of as the distinct riverbank demarcation.
- On the south side of South Mountain, there are over 50 ephemeral washes that the freeway would potentially cross along the E1 Alternative.

Draft Jurisdictional Waters

How do the alternatives differ in construction-related impacts?

The alternatives and options in the Western Section would have similar potential impacts to jurisdictional waters, as shown in the table below. These impacts would be related to the Salt River crossing. The E1 Alternative would potentially affect ephemeral washes on the south and southwest side of South Mountain. Some of these ephemeral washes may need to cross under the freeway in a common conveyance culvert rather than individually. Temporary construction zones may have additional impacts.

Alternative	Salt River Potential Jurisdictional Waters Encroachment (acres)[a]	Ephemeral Washes Potential Jurisdictional Waters Encroachment (acres)[a]
Western Section Alternatives		
W55	21.6	N/A
W71	18.3	N/A
W101WPR	22.9	N/A
W101WFR	22.9	N/A
W101CPR	22.9	N/A
W101CFR	22.9	N/A
W101 EPR	22.9	N/A
W101EFR	22.9	N/A
Eastern Section Alternative		
E1	N/A	3.5
N/A: Not Applicable		

[a]Potential actual impacts would be less and limited to pier placements

What kinds of freeway operational impacts (post-construction) would occur?

Once the project is constructed and open to use, no further discharge of dredged or fill materials is anticipated. The Arizona Department of Transportation will obtain a permit in accordance with the requirements of Section 404. The permit will outline specific measures to be undertaken to ensure no further degradation (such as increased erosion or water quality degradation) of jurisdictional waters would occur as a result of the project. Details of the mitigation plan associated with the permit will be presented in the Final EIS and further refined during the final design process for the selected alternative.

The bridge structure across the Salt River would generate runoff into the river. Whether this flow is directly drained into the river, or will flow into a settlement basin before discharge into the river, will be determined during final design through coordination with the USACE and the City of Phoenix.

Draft Jurisdictional Waters

How do the alternatives differ in operational-related impacts?

There are no substantial differences in the magnitude or types of impacts.

What if the project was not constructed?

With no action, there would be no direct impacts on any jurisdictional waters; however, continued growth throughout the Study Area would likely contribute to ongoing impacts on jurisdictional waters.

Are there any specific and/or unique impacts from the build alternatives?

For a project of the magnitude of the South Mountain Freeway, there are no unique impacts anticipated. However, the U.S. Army Corps of Engineers and the City of Phoenix are looking at ways to help restore flood conveyance, habitat, and recreational values to the Salt River. The project, known as the Rio Salado Oeste, encompasses jurisdictional boundaries of the Salt River. The U.S. Army Corps of Engineers and City officials are aware of the freeway project and believe it would bring beneficial effects to their project. ADOT has agreed to work with Rio Salado Oeste planners in coordinating the two projects.

Are there things that could be done to reduce or avoid impacts?

The alternatives have been evaluated for avoidance specific to jurisdictional waters and ADOT has determined that complete avoidance is not possible. Minimization will be implemented through alternatives analysis and mitigation. Compensation measures will be implemented to account for impacts that cannot be avoided. In the Eastern Section, in some locations, bridges would be constructed instead of box culverts (as originally planned) to avoid impacts on jurisdictional waters and to allow for wildlife movement.

To help ensure water quality impacts are minimized, ADOT will prepare a water quality certification application in accordance with Section 401 of the Clean Water Act as part of the Section 404 permitting process. The application will be submitted for review and approval by the Arizona Department of Environmental Quality (ADEQ). ADEQ will review the Section 404 permit for compliance with water quality standards and will determine that the project is in compliance with ADEQ policies and Section 401 of the Clean Water Act of 1977 (33 U.S.C. 1251). ADOT will comply with specific conditions of the CWA Section 401 certification.

What can be done to reduce construction impacts?

Section 402 National Pollutant Discharge Elimination System (NPDES) of the Clean Water Act requires that ADOT, or its contractor, obtain a permit before beginning construction.

The permit requires that a Stormwater Pollution Prevention Plan (SWPPP) be prepared. The plan will include what are known as Best Management Practices for controlling construction related pollution discharge. Some of the types of practices ADOT could employ to reduce impacts in the floodplains during construction include:

- Constructing silt barriers
- Insuring construction equipment is in good working order
- Creating sediment basins
- Using controlled equipment fueling and maintenance areas
- Ensuring proper disposal of potentially contaminated materials
- Limiting vegetation removal and soil disturbance
- Seeding and mulching exposed slopes immediately after construction
- Ensuring existing flows of existing canals and irrigation water

ADOT will develop a specific SWPPP during the final design efforts for the project.

What can be done to reduce jurisdictional waters impacts once the freeway is operating?

Section 404 permitting mitigation requirements will be followed post-construction. Measures will be presented in the Draft EIS and finalized during the final design process after the EIS process is completed.

Are the conclusions presented in this summary final?

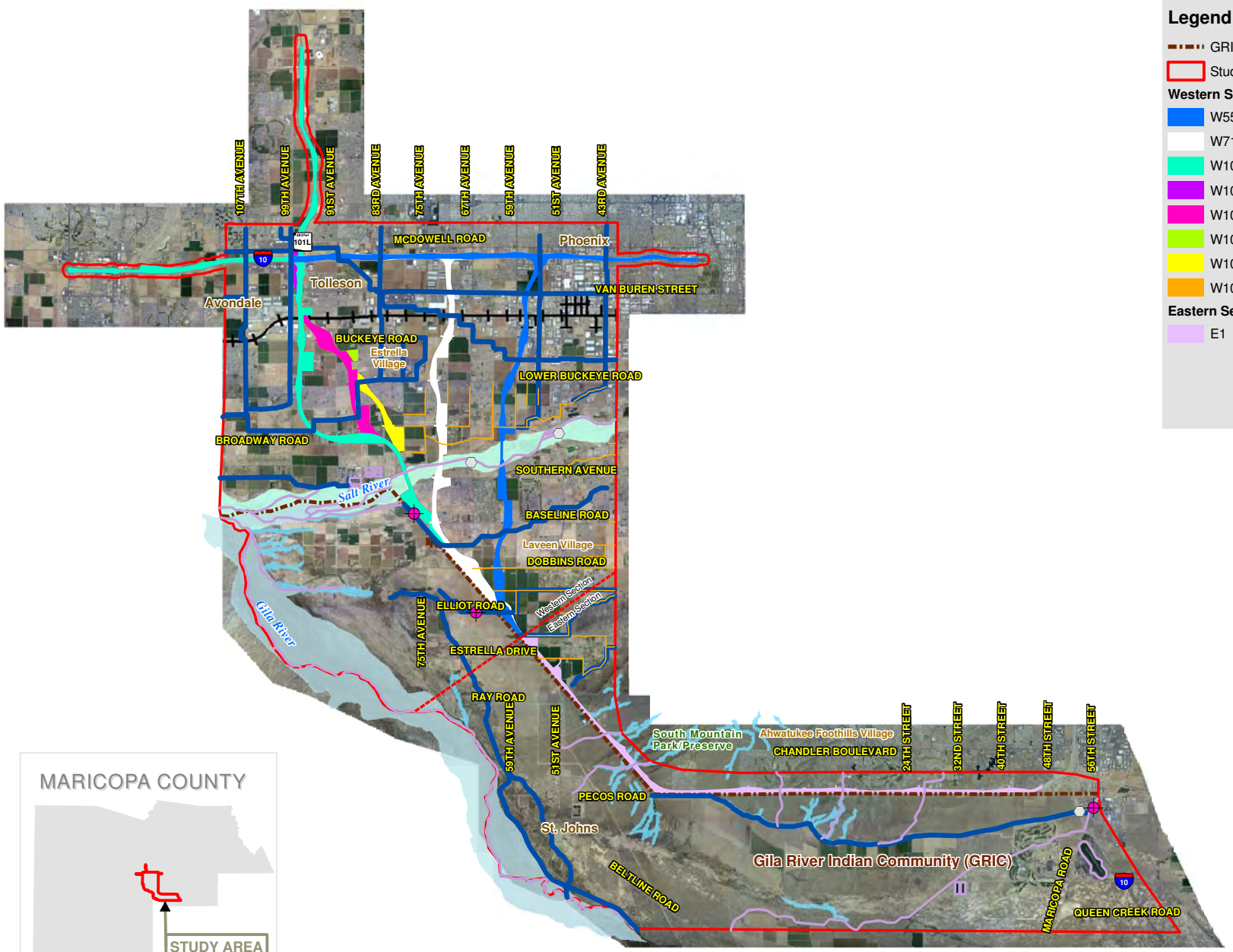
It is quite likely that quantitative findings relative to impacts are subject to change. The reasons for future changes which will be presented to the public during the Draft EIS, Final EIS and Final Design stages are based on the following:

- Refinement in design features through the design process.
- Updated aerial photography as it relates to rapid growth in the Western Section of the Study Area.
- On-going communications with the City of Phoenix regarding measures to minimize harm to South Mountain Park/Preserve.
- On-going communications with the Gila River Indian Community (GRIC) in regards to granting permission to study action alternatives on GRIC lands.
- Potential updates to traffic forecasts as updated regularly by MAG.
- Potential updates with regards to the special 2005 survey to augment the 2000 Census.
- As design progresses, cost estimates for construction, right-of-way acquisition, relocation and mitigation will be updated on a regular basis.

However, even with these factors affecting findings, it is anticipated the affects would be equal among the alternatives and consequently impacts would be comparatively the same. This assumption would be confirmed if and when such changes were to occur.

As a member of the Citizens Advisory Team, how can you review the entire technical report?

The complete technical report is available for review by making an appointment with Mike Bruder at 602-712-6836 or Mark Hollowell at 602-712-6819.



South Mountain Transportation Corridor
TRACS No. 202L MA 054 H5764 01L
Federal Aid Number FHWA-AZ-EIS-202-D

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Jurisdictional Waters Report

Jurisdictional Waters

South Mountain Freeway
Transportation Corridor Study

Aerial Photography Date: April 2006

Figure 1

South Mountain Transportation Corridor Study

Citizens Advisory Team
Technical Report Summary

Draft Water Resources

Why study water resources in the Environmental Impact Statement (EIS)?

It is clear that as our population grows in the West, water has become and will continue to be a very important resource. Water will be even more important to residents in the arid southwestern portion of the United States. As such, how we use, conserve, and treat our water will continue to be of utmost importance in the years ahead. In the southwest, we depend on both surface water and groundwater supplies for our every day uses (i.e., drinking, irrigation, flood control, and recreation).

A project like the proposed South Mountain Freeway could have effects on water resources in the Study Area. If not planned for and constructed properly, the project could alter surface and ground water conditions. Some examples are:

- Surface water flows into neighboring washes and rivers like the Salt River could be altered. This could have effects on neighboring vegetation, habitat, and water flow volumes. A project like the South Mountain Freeway could also alter the direction in which water flows in the Study Area.
- Quality of the water entering drainages as well as in the ground water could be altered.
- Existing wells in the path of the South Mountain Freeway could be closed and in turn, new wells would have to be located.

For the purposes of the EIS, the study team analyzes the potential impacts on water resources in the Study Area. Depending on the types of impacts identified, the study team would propose measures to avoid, reduce or otherwise mitigate the impacts when appropriate.

Conversely, surface water flows, if left uncontrolled can cause substantial damage to a project like the proposed South Mountain Freeway once constructed. Consequently, the study team looks at drainage features that would need to be incorporated into the project design to ensure surface water flows do not cause damage to the freeway.

What kind of impacts would occur from construction?

There are several ways the construction of a project like South Mountain Freeway could alter water resources in the Study Area. Some examples are listed below:

- Surface water quality could be altered from runoff drainage and equipment operations. If not properly planned for, silt, sediment, and equipment-related materials could enter into neighboring drainages altering the quality of the surface water.
- For a project of the magnitude of the proposed South Mountain Freeway, it would not be unusual for construction to occur in close proximity to both active and closed wells. These wells tap into the Study Area's groundwater supplies. Unforeseen construction accidents such as equipment spills could result in undesirable runoff into these wells and in turn, possibly be detrimental to the quality of groundwater supplies.
- There likely would be numerous types of wells in the Study Area. State government typically keeps very close track of the wells' locations and purposes (in the case of Arizona, the Arizona Department of Water Resources (ADWR) monitors the wells).

Draft Water Resources

Wells within the possible path of a project like the South Mountain Freeway are often used for monitoring, production, geotechnical observation, domestic uses, testing purposes and irrigation. If such a well(s) is within the proposed right-of-way, the Arizona Department of Transportation (ADOT) would need to look at ways to relocate the well to a new location. If the well is inoperable, ADOT would look at what would need to be done to cap the well to ensure no degradation to ground water supplies would occur. See Figure 1 for wells located in the Study Area.

For the South Mountain Freeway project, do the alternatives differ in construction-related impacts?

There would be no substantial differences in the types or magnitude of potential impacts on water resources as a result of project construction. There is a possibility that construction activities could alter surface water flows and the quality of the flows into neighboring washes and rivers like the Salt and Gila rivers, and in turn, have effects on neighboring vegetation, habitat, as well as flow volumes and the direction of the flows. However, there are many required and standard construction practices that would be implemented to reduce the potential for these kinds of incidents from occurring. They are summarized later in this document.

There are a number of wells potentially affected by relocation as shown in the table below. For a project like the South Mountain Freeway, the number of wells within the proposed alignments is not considered unusual. As mentioned, many of these wells tap into the Study Area's groundwater supplies. Unforeseen construction accidents such as equipment spills could result in undesirable runoff into these wells and in turn, possibly be detrimental to the quality of groundwater supplies. Again however, there are many required and standard construction practices that would be implemented to minimize these kinds of incidents from occurring. They too are summarized later in this document.

Alternative/Options	# of Wells
Western Section	
W55	17
W71	25
W101WPR	44
W101WFR	45
W101CPR	45
W101CFR	46
W101EPR	43
W101EFR	44
Eastern Section	
E1	26

Draft Water Resources

What kinds of freeway operational impacts (post-construction) would occur?

Surface water quality could be altered from runoff drainage (until seeded vegetation is established) and by increased pollutants from vehicles using the impervious surface of the freeway.

Do the alternatives differ in operational-related impacts?

When operating, any of the alternatives or options would have similar kinds and levels of impacts on surface water quality. There are no distinct differences in operational-related impacts among the action alternatives.

What if the project was not constructed?

No project specific impacts would be experienced. However, urban growth is projected to continue in the Western Section and traffic volumes would increase on surface streets as a result. Pollutants would continue to increase on surface streets and drainage runoff from construction areas would continue.

Are there any specific and/or unique impacts from the action alternatives?

There appear to be two unique potential impacts specific to the proposed South Mountain Freeway project. The first is common to all action alternatives in the Western Section of the Study Area. These alternatives would likely cross several irrigation canals within the Study Area. However, the impact on these canals can be mitigated by pipe conveyance under the freeway, which is a standard practice.

The second 'unique' potential impact relates to the 'cuts' that are anticipated through three ridgelines of the South Mountains along the northern border of the Gila River Indian Community. It is expected that the cuts may be substantial in size and could pose challenges in controlling unwanted runoff during construction and once in operation.

Are there things that could be done to reduce or avoid impacts?

ADOT will look at a number of ways to avoid, reduce, or otherwise mitigate construction-related impacts. Examples of some of the measures ADOT could undertake are listed below.

The actions that would be taken to reduce construction impacts are governed by Section 402 (NPDES) of the Clean Water Act (CWA). A permit would be required when ground disturbing activities exceed one acre. This project would disturb more than five acres and as such is considered a large construction project and a permit will be required.

The permit would include the development of a Stormwater Pollution Prevention Plan (SWPPP) which includes what are known as Best Management Practices for controlling construction

related pollution discharge. The types of practices ADOT could employ to reduce impacts include:

- Construction of silt barriers
- Inspect construction equipment
- Establish sediment basins
- Identify and use controlled equipment fueling and maintenance areas
- Proper disposal of potentially contaminated materials
- Limit vegetation removal and soil disturbance
- Maintain flatter slopes
- Clean freeway at construction completion
- Seed and mulch exposed slopes immediately after construction
- Abandon/replace existing groundwater wells as necessary. New wells installed in accordance with Arizona Department of Water Resources (ADWR) requirements.
- Allow flow of existing canals, irrigation water, etc.

ADOT will develop a specific SWPPP during the final design efforts for the project.

If a well is affected due to roadway construction, well abandonment and compensation (drilling a new well) may be required. Impacted wells that require full replacement via drilling a new well will be required to comply with the 2006 ADWR well impact rules.

Other measures that ADOT can consider are:

- Surface water quality could be improved when the freeway is open to operation by proper maintenance of the retention, detention, and stormwater runoff facilities.
- For wells that are affected during construction, the well would be abandoned and the owner would be compensated by drilling a new well.
- Affected irrigation ditches could be conveyed via pipe under the freeway.
- Clean Water Act Section 401 certification by the ADEQ will be conducted.

What can be done to reduce water resource impacts once the freeway is operating?

There are a range of activities ADOT could undertake during construction to reduce operational impacts when the freeway is open to the public. These measures could include:

- Properly designed roadway channels resistant to erosion.
- Maintain appropriate slope vegetation.
- Rock slope protection where necessary.
- Settling basins for containment of initial flow of pollutants during precipitation.

Measures will be presented in the Draft EIS and finalized during the final design process after the EIS is completed.

Draft Water Resources

Are the conclusions presented in this summary final?

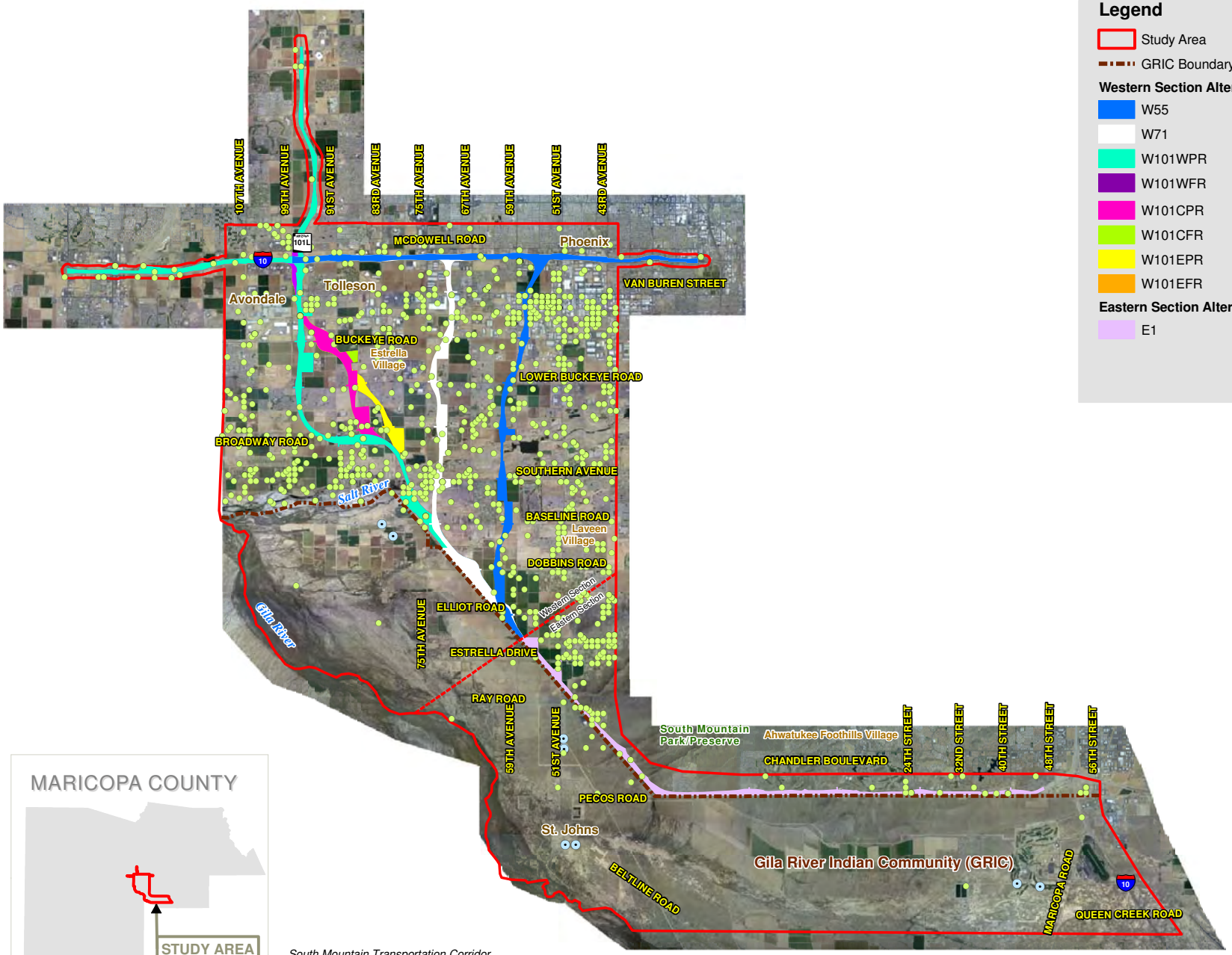
It is quite likely that quantitative findings relative to impacts are subject to change. The reasons for future changes which will be presented to the public during the Draft EIS, Final EIS and Final Design stages are based on the following:

- Refinement in design features through the design process.
- Updated aerial photography as it relates to rapid growth in the Western Section of the Study Area.
- On-going communications with the City of Phoenix regarding measures to minimize harm to South Mountain Park/Preserve.
- On-going communications with the Gila River Indian Community (GRIC) in regards to granting permission to study action alternatives on GRIC lands.
- Potential updates to traffic forecasts as updated regularly by the Maricopa Association of Governments.
- Potential updates with regards to the special 2005 survey to augment the 2000 Census.
- As design progresses, cost estimates for construction, right-of-way acquisition, relocation and mitigation will be updated on a regular basis.

However, even with these factors affecting findings, it is anticipated the affects would be equal among the alternatives and consequently impacts would be comparatively the same. This assumption would be confirmed if and when such changes were to occur.

As a member of the Citizens Advisory Team, how can you review the entire technical report?

The complete technical report is available for review by making an appointment with Mike Bruder at 602-712-6836 or Mark Hollowell at 602-712-6819.



South Mountain Transportation Corridor
TRACS No. 202L MA 054 H5764 01L
Federal Aid Number FHWA-AZ-EIS-202-D

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Water Resources Report

Water Resources Wells

South Mountain Freeway Transportation Corridor Study

Aerial Photography Date: April 2006

Figure 1

South Mountain Transportation Corridor Study

Citizens Advisory Team
Technical Report Summary

Draft Floodplains

Why study floodplains in the Environmental Impact Statement (EIS)?

Floodplains are an important component of the human and natural environment. Floodplains create a specific area for water to pass through during times of high water flow to prevent flooding in other locations (i.e., streets, businesses or homes). The boundaries of floodplains are determined and mapped by the federal government.

Floodplains also can provide natural and beneficial values. Such values include habitat for wildlife, open space and recreation areas, areas for farming, recharge of groundwater, and even mining opportunities.

Structures such as buildings or bridge piers when placed in floodplains have the potential to reduce the ability of the floodplain to handle the high water flows. This could cause flooding to occur in areas not intended for carrying flood waters. There are regulations in place that regulate what can be constructed in floodplains.

A project like the South Mountain Freeway could require bridges over floodplains. To construct such a crossing, it may be necessary to place bridge piers in the floodplain. The study team has analyzed if such a crossing would cause any changes to floodplain values and boundaries in the Study Area and the findings are summarized below.

What kind of impacts would occur from a project like the South Mountain Freeway?

A project like the South Mountain Freeway could alter floodplain boundaries and/or it could alter the natural and beneficial values that are provided by a floodplain.

Are there floodplains that could be affected by the South Mountain Freeway?

There are two known floodplains that could be affected (Figure 1).

- The Salt River floodplain is located through the entire Western Section of the Study Area. It has been substantially altered from its natural conditions through mining and agricultural uses over the course of time.
- There is an un-named floodplain just north of the Union Pacific Railroad (UPRR) tracks to the south of Van Buren Street. It is a discontinuous floodplain artificially created by the Roosevelt Irrigation Canal and the railroad.

How do the alternatives differ in floodplain impacts?

The two 100-year floodplains that would be affected (Salt River and the un-named floodplain north of the UPRR tracks) may have the following potential acreage encroachment impacts if earthen embankment were used rather than a bridge:

Draft Floodplains

Western Section Alternative/Option	Salt River Floodplain Encroachment (acres)	Union Pacific Railroad Floodplain Encroachments (acres)
W55	44.4	7.7
W71	116.1	22.1
W101WPR	30.0	32.9
W101WFR	30.0	32.9
W101CPR	30.0	32.3
W101CFR	30.0	32.3
W101 EPR	30.0	32.3
W101EFR	30.0	32.3

For any of these action alternatives, the Arizona Department of Transportation (ADOT) fully anticipates constructing bridges over much of the floodplains in order to comply with federal, state and local floodplain regulations. Bridge piers and abutments will be constructed in such a way in that they do not contribute to any substantial changes in flood water elevations.

As such, all of the action alternatives represented in the table above would have similar potential impacts on the two floodplains affected by the project.

Would floodplain impacts occur once the freeway is in operation?

Floodplain impacts are not anticipated once the freeway is completed and operating regardless of the alternative that is constructed. The proposed action would not create a substantial risk because it would encroach on either of the two floodplains in only a limited way.

What if the project was not constructed?

Growth projections for the Phoenix metropolitan area show that rapid development in the Study Area will continue over the next 20 years. If the freeway were not to be constructed, it is possible the floodplain would need to be crossed in several locations at major arterial streets to enable transportation in and out of the Study Area. Some streets currently crossing the Salt River at grade can be closed due to minor flooding of the channel.

Are there any specific and/or unique impacts from the action alternatives?

For a project of the magnitude of the South Mountain Freeway, there are no unique impacts anticipated. However, the US Army Corps of Engineers (USACE) and the City of Phoenix are looking at ways to help restore flood conveyance, habitat, and recreational values to the Salt River. The project is known as the Rio Salado Oeste project. USACE and City officials are aware of the freeway project and believe it may bring beneficial effects to their project. ADOT has agreed to continuously work with Rio Salado Oeste planners in coordinating the two projects.

Draft Floodplains

Are there things that could be done to reduce or avoid impacts?

ADOT will look to minimize floodplain impacts by using transverse crossing of the floodplains and avoiding longitudinal encroachments where possible. During final design, further analysis will be done to minimize encroachment related impacts such as hydrology, hydraulics, sediment transport, and erosion analyses.

What can be done to reduce construction impacts?

Controlling both on-site and off-site drainage flow can aid in flood control. For on-site drainage control, ADOT would follow federal and state guidelines in designing drainage facilities.

To control off-site flows affecting the proposed action, project-specific measures could include:

- Culverts sized based on the design discharge of a 100-year event (an event with a 1 percent chance of occurring in any one year),
- Surcharge of water surface elevations by the new facilities limited to the existing and proposed right-of-way,
- Culverts designed to be self-cleaning,
- Reinforced Concrete Box Culvert and Reinforced Concrete Pipe provided with adequate cover, and
- Retention/detention basins strategically sized and located to control runoff flows.

Are the conclusions presented in this summary final?

It is quite likely that quantitative findings relative to impacts are subject to change. The reasons for future changes which will be presented to the public during the Draft EIS, Final EIS and Final Design stages are based on the following:

- Refinement in design features through the design process.
- Updated aerial photography as it relates to rapid growth in the Western Section of the Study Area.
- On-going communications with the City of Phoenix regarding measures to minimize harm to South Mountain Park/Preserve.
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However, even with these factors affecting findings, it is anticipated the affects would be equal among the alternatives and consequently impacts would be comparatively the same. This assumption would be confirmed if and when such changes were to occur.

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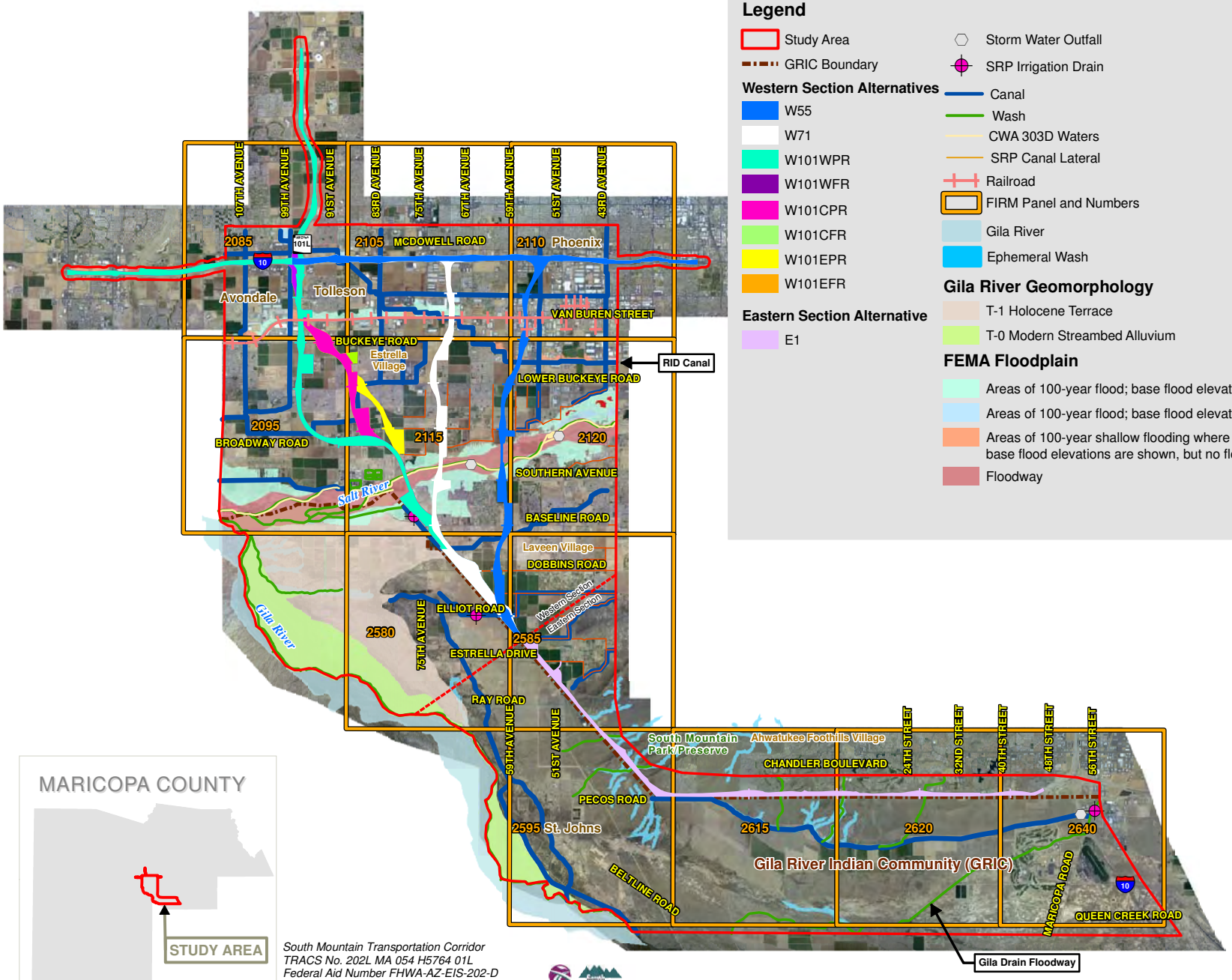

Legend

- Study Area
- GRIC Boundary

Western Section Alternatives

- W55
- W71
- W101WPR
- W101WFR
- W101CPR
- W101CFR
- W101EPR
- W101EFR

Eastern Section Alternative

- E1

- Storm Water Outfall
- SRP Irrigation Drain
- Canal
- Wash
- CWA 303D Waters
- SRP Canal Lateral
- Railroad
- FIRM Panel and Numbers
- Gila River
- Ephemeral Wash

Gila River Geomorphology

- T-1 Holocene Terrace
- T-0 Modern Streambed Alluvium

FEMA Floodplain

- Areas of 100-year flood; base flood elevations and flood hazard factors determined.
- Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
- Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
- Floodway

0 6,000 12,000 Feet

1 inch equals 12,000 feet

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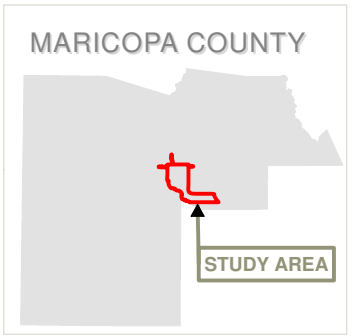

South Mountain Transportation Corridor
TRACS No. 202L MA 054 H5764 01L
Federal Aid Number FHWA-AZ-EIS-202-D

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Floodplains Report

Floodplains Within the Study Area

South Mountain Freeway
Transportation Corridor Study

Aerial Photography Date: April 2006

Figure 1

azcentral.com
ARIZONA'S HOME PAGE

Officials say proposed freeway options are least disruptive

Colleen Sparks
The Arizona Republic
Feb. 29, 2008 12:57 PM

The controversial proposed South Mountain Freeway is the most cost-efficient, most feasible and least disruptive of the options, state transportation officials said Thursday.

They said building at ground level along Pecos Road will displace the fewest homes. But they were unable to tell those at the South Mountain Citizens Advisory Team Meeting exactly how many homes would be lost in other scenarios. The volunteer group is charged with recommending whether a freeway should be built or not.

The group also did not get specific answers on how the proposed route would affect wildlife and the mountain ridges it would cut through during the presentation by Arizona Department of Transportation (ADOT) officials and others on the freeway study team.

"They're not studying all the options," advisory team member Chad Blostone of the Foothills HOA board said. "How are they going to remove rock at the ridges?"

The freeway would run along the Pecos Road alignment in Ahwatukee and cut through South Mountain Park, connecting to Interstate 10 at 55th Avenue.

The freeway study team said it prefers to extend the freeway through three mountain ridges, creating canyons in South Mountain Park, rather than building a tunnel underneath or a bridge over them. The deepest vertical cut would be estimated at 220 feet in the ridges, the report showed.

The ADOT freeway study team showed renderings of the proposed route at ground level, if it went on a bridge over the ridges and with it running below them.

They also talked about other route options that were eliminated, including aligning the freeway with Chandler Boulevard and Ray Road.

Tim Tait, ADOT community relations director, said all the data would be in the draft environmental impact statement when it's released publicly, possibly next year.

The tunnel option was eliminated due to the cost and the fact that it would not eliminate freeway noise, transportation team officials said.

Ben Spargo, a project engineer with HDR Engineering on the freeway study team, said it would cost between about $1.23 billion and $1.26 billion to build the freeway below ground compared to about $810 million to build it at ground level. And building a tunnel under the ridges would still have an impact on the natural setting and would also pose safety concerns, Spargo said.

Tait said tunnels are "natural targets for those who have evil intentions," including terrorists.

Spargo said running the freeway below ground between Interstate 10 near the Loop 202 Freeway in Chandler to about 55th Avenue and Elliot Road would displace between 491 and 616 homes, depending on the type of drainage system used.

Building a bridge over the ridges could cost at least $200 million more than cutting through them, the report stated.

The Pecos Road alignment was chosen as the

eastern alignment because building it north of there would create "greater impact to the community" and constructing it south would put it on the Gila River Indian Community land, Tait said. Drainage issues also were taken into account when determining the route, Tait said.

Adelheid Fisher from the Ahwatukee Foothills Village Planning Committee asked how the freeway team knew that no "documented wildlife" were in the area of the proposed freeway route, something stated in the presentation.

Spargo said the biological experts would discuss that issue at a future meeting.

Advisory team member Michael Goodman said the report showed "no formal trailheads or staging areas for access into the park exist" where the freeway would pass through South Mountain Park but a nationally recognized trail does run through the route. That needs to be included in the study, Goodman said.

"We know there are a number of wildlife corridors," in the proposed route, he said. "Some of this is somewhat misleading."

Regardless of where or how it is built, Ahwatukee resident William Ramsay said, he opposes the freeway.

"Whether it's at grade or sub-grade, it's going to be catastrophic for the community," he said. "No decision's been made officially. Those of us in the community still have a lot to say."

Ahwatukee resident Jim Jochim is also a freeway opponent.

"I don't think it's worth the cost," he said.

Tait said Thursday that a parkway has been studied but would not alleviate traffic as much as a freeway.

South Mountain Freeway is expected to carry as many as 190,000 vehicles per day in 2030 but a parkway would only move 60,000 to 70,000 vehicles a day, he said. A parkway is generally two lanes in each direction and slower speed limits than freeways, Tait said.

Advisory team bristles at being told best way to build freeway

By Doug Murphy | AFN
March 3, 2008 - 6:36PM
The Arizona Department of Transportation, along with a consulting engineering firm, says it has found the best possible route and design for the South Mountain Loop 202 Freeway.
Which has left some members of the South Mountain Citizens Advisory Team wondering just what they are supposed to provide input on, since many decisions have already been made.
“They didn’t even let us talk about the design” and discounted every alternative as not meeting the basic purpose and need of the freeway, said Brian Smith, who represents the Calabrea Homeowners Association on the advisory team.
His frustration was shared by visitors who listened to several presentations Feb. 28 outlining why nothing but a $1.7 billion, 10-lane freeway at ground level along Pecos Road and then cutting deeply into two ridges in South Mountain was the preferred option submitted by ADOT to the federal government in a draft environmental impact statement now being studied.
“While the meetings have been open to the public, I think ADOT and the Maricopa Association of Government have contrived a lot of the data to fit their outcome,” said Ahwatukee Foothills resident Bill Ramsey, who is opposed to the freeway.
“I sense some frustration because, does this (meeting) really matter?” Ramsey said after the advisory team was told how the freeway would be built.
According to ADOT’s plans, the freeway would be at ground level, rising up over surface streets at 24th, 32nd and 40th streets, Desert Foothills Parkway and 17th Avenue.

That option would eliminate 317 homes, slightly more than previously estimated, compared with 616 homes eliminated if the freeway were built completely below grade level.

“That’s what bothers me, it was all or nothing, “ Smith said, complaining that ADOT and engineering firm HDR didn’t show options, like elsewhere in the Valley where the freeway varies from sunken to above ground to minimize the impact on surrounding neighborhoods.

“They just showed it all below or all above,” Smith said.

The below ground option was discounted, said Ben Spargo of HDR, because it wouldn’t reduce the visual or noise impacts of the freeway. It would also mean another 150 acres and 299 homes used to create six giant water retention ponds.

The plans also call for slicing into two ridges in South Mountain Park and a third nearby ridge.

The cuts would be hundreds of feet deep into ridges that the Gila River Indian Community considers culturally important.

Tunneling was considered, Spargo said, but building the freeway under the ridges would cost from $230 million to $1 billion more, and technology lags when it comes to building what should be two 104-foot-wide tunnels.

The Loop 202 was first proposed in 1985, but a lack of funding left the freeway on the drawing board. In 2001, ADOT created the advisory team to help ADOT update the old plan to take into account new construction, especially in the Ahwatukee Foothills area.

Since then, ADOT and the team focused mainly on the west side route with the team recommending connecting to Interstate 10 at the existing Loop 101/I-10 interchange. But ADOT director Victor Mendoza rejected the recommendation in favor of the original 1985 connecting near 55th Avenue, despite concerns about ground pollution and major business relocations in the area around a large

fuel storage facility.

Opponents of the freeway point to lingering questions about how air quality - especially for children at the half-dozen schools within yards of the proposed Loop 202 - would have a significant impact on projected congestion on I-10, especially around the Broadway curve, and if projected traffic loads wouldn't be better accommodated by building the freeway further south and connecting with I-10 further west.

The Gila River Indian Community is often looked on as an alternative to building along Pecos Road, but the Tribal Council has passed several resolutions opposing a freeway on GRIC land. They did give ADOT permission to look at the impact a freeway on Pecos Road would have on Indian land, which should help speed up approval of the draft environmental impact statement.

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Freeway advisory team to address water issues

Colleen Sparks
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The South Mountain Citizens Advisory Team will discuss Tuesday how the proposed freeway will affect washes, wells and rivers.

The freeway would run along the Pecos Road alignment in Ahwatukee Foothills and cut through South Mountain Park. It could alter surface and groundwater conditions when surface water flows into neighboring washes and the Salt and Gila rivers, according to an Arizona Department of Transportation report.

"There's a lot of regulatory oversight that goes into all of the issues surrounding water, everything from groundwater to runoff," said Tim Tait, community relations director for ADOT.

Wells around the freeway route, including about 20 in Ahwatukee, might have to be moved, the report showed.

"The bigger issue for the Ahwatukee area is more the management of storm water," said Tait, who is a member of the South Mountain Freeway study team. "Drainage basin needs change based on which way the freeway is constructed."

On the South side of South Mountain there are more than 50 washes that run after a rainfall that could be crossed by the proposed freeway. Sometimes those washes can be channelized to control storm water run-off and directed toward culverts so they cross under a freeway, according to the ADOT report.

Foothills HOA board member Chad Blostone, also on the advisory team, said he is concerned about whether an HOA well on Pecos Road will have to be moved when the freeway is built. The well feeds water to lakes and a golf course in the HOA, Blostone said.

"If it can't be moved, where do we get our water from?" he said. "The expense will skyrocket."

The meeting is at 6 p.m. Tuesday in the Student Union Hall at South Mountain Community College, 7050 S. 24th St. in Phoenix.